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INTRODUCTION TO PHILOSOPHY

WALTER T. MARVIN

A SYLLABUS
OF AN
INTRODUCTION TO PHILOSOPHY

COLUMBIA UNIVERSITY CONTRIBUTIONS

TO

PHILOSOPHY, PSYCHOLOGY AND EDUCATION

VOL. III

Nos. 3 & 4

A SYLLABUS

OF AN

INTRODUCTION TO PHILOSOPHY

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178.215.

21.2.23.

SEPTEMBER, 1899

THE MACMILLAN CO., 66 FIFTH AVENUE, NEW YORK

MAYER AND MÜLLER, MARKGRAFENSTRASSE, BERLIN

Price \$1.25

PREFACE

THE chief end that this syllabus is desired to fulfill, is to aid the students attending my course of lectures on the introduction to philosophy. A general outline of such a course should enable them from the beginning to see the place each lecture is intended to take in the series as a whole, and also should help them in understanding the steps in the argument, in taking notes and in asking questions.

It is, however, hoped that should the views set forth in the syllabus meet to any great extent the approval of other instructors in philosophy, some of them also may find it convenient to make use of the book. The syllabus is not intended as a text book, but solely as an aid to the student in grasping the subject as a whole.

The brevity of a syllabus naturally tends to make it more difficult than a text book; but it should not be judged in the same way, because it presupposes that far the greater part of the instruction is to come directly from the lecturer.

The syllabus takes the position that we should look at the problems of philosophy as far as possible from the point of view of their highest development. This highest stage seems to the author to be idealism. Yet one serious question that idealism does not appear satisfactorily to have answered is that of the world ground, or, in short, the principle of sufficient reason. Whether idealism must draw nearer realism or whether in its extreme form it will be able to give a valid solution of this problem, is a question the syllabus does not discuss. This belongs rather to advanced metaphysics to deal

with, and the difficulty is here mentioned only because the syllabus has to be somewhat inconsistent by reason of the omission of that problem.

The literature given is very little indeed, being confined chiefly to Paulsen's Introduction and to Weber's and Windelband's Histories of Philosophy. To give more would be to refer to advanced works on metaphysics, to monographs and to the great philosophical classics, very few of which it will be expected of the beginner to read in connection with an elementary course. The choice of the three books above mentioned was made because they seem, on the whole, the three best for beginners. Further references to other short histories of philosophy, such as Zeller's Outlines of Greek Philosophy and Falckenberg's History of Modern Philosophy, can very readily, if desired, be found by the student himself. Then too, references to much further literature are given in the notes of Paulsen, Weber and Windelband.

WALTER T. MARVIN.

Columbia University, June 12, 1899.

CONTENTS

PART I

INTRODUCTORY

CHAPTER I

THE CONCEPTION AND DEFINITION OF PHILOSOPHY

	PAGE
§ 1. The Two Chief Kinds of Events	127
§ 2. Consciousness Non-spatial	129
§ 3. The Definition of Consciousness	130
§ 4. The Stimulus of Consciousness	130
§ 5. The Classification of Consciousness	132
§ 6. Knowledge	132
§ 7. The Formulation of Knowledge	135
§ 8. Science and Art	136
§ 9. The Distinction between the Formal and the Material Sciences	138
§ 10. The Formal Sciences	139
§ 11. The Material Sciences. The Distinction between Phi- losophy and Science	139
§ 12. The a priori and a posteriori Methods	140
§ 13. Science, or a posteriori gotten Knowledge	141
§ 14. The Presuppositions of Science	144
§ 15. Philosophy, or the a priori Science	145
§ 16. The Evolution of Knowledge and of Philosophy	145

CHAPTER II

THE CLASSIFICATION OF PHILOSOPHY

§ 17. The Four-fold Interpretation of the Universe	148
§ 18. The Disciplines of Philosophy. Metaphysics, Aesthetics, Philosophy of Religion and Theoretical Ethics	149
§ 19. Philosophy as a General Theory of the Universe	151

PART II

METAPHYSICS

CHAPTER I

THE THREE CHIEF SUBJECTS OF METAPHYSICS

	PAGE
§ 20. General	152
§ 21. The Given, or the Content of Simple Apprehension . .	153
§ 22. Conceptual Knowledge	161
§ 23. The Principles of Reality	164

CHAPTER II

THE PROBLEMS OF THE GIVEN

§ 24. Introductory	165
§ 25. Realism <i>vs.</i> Idealism	165

A. Realism

§ 26. The Problems of Realism	167
§ 27. How is the Transcendent World Known?	169
§ 28. Realistic Empiricism	170
§ 29. Realistic Rationalism	172
§ 30. The History of these two Doctrines	174
§ 31. To what Extent is the Transcendent World Known? . .	176
§ 32. Dogmatism	176
§ 33. The Nature of the Transcendent World	178
§ 34. The Ontological and Cosmological Problems	180

(a) Ontology

§ 35. Hylozoism	182
§ 36. Materialism	184
§ 37. Spiritualism	189
§ 38. Dualism	192
§ 39. Infinitism	194

(b) Cosmology

§ 40. Singularism. (Pantheism)	195
§ 41. Pluralism	198
§ 42. Theistic Pluralism. (Theism <i>vs.</i> Pantheism)	201

	PAGE
§ 43. Atheistic Pluralism. (Atheism <i>vs.</i> Theism)	204
§ 44. Materialistic Pluralism. The Atomic Theory	207
§ 45. Spiritualistic Pluralism. The Monadology	208
§ 46. Dualistic Pluralism	210
§ 47. Criticism and Problematism	211
§ 48. The Nature of the Given	216
§ 49. The Relation between the Transcendent and the Given	222
§ 50. Their Relation is that of the Infinite Substance and its Modes. (Pantheism)	224
§ 51. The Given is the Result of the Interaction of two or more Substances. (Pluralism)	225
§ 52. (a) Realism	227
§ 53. (b) Transcendental Idealism	229
§ 54. (c) Idealism	230
§ 55. (d) Transcendent Occasionalism	230
§ 56. (e) Immanent Occasionalism, the Pre-established Har- mony	231

B. Idealism

§ 57. The General Idealistic Position	232
§ 58. Is the Given Determinate or Indeterminate?	233
§ 59. The Given is Determinate	234
§ 60. The Given is Indeterminate	236
§ 61. The Given the Subject of all Predication	242
§ 62. The Problems of Realism as transferred to Idealism	244
§ 63. Things and their Qualities	245
§ 64. Dualism, Monism and Infinitism	246
§ 65. Singularism and Pluralism	247
§ 66. The Interaction Theory <i>vs.</i> Parallelism	248

CHAPTER III

THE PROBLEMS OF CONCEPTUAL KNOWLEDGE

§ 67. General	252
§ 68. The Nature of Conceptual Knowledge	255
§ 69. Absolutism <i>vs.</i> Relativism	259

	PAGE
§ 70. The Nature of Conceptual Knowledge (continued) . .	260
§ 71. The Validity of Conceptual Knowledge	261
§ 72. The Nature of Conceptual Knowledge (concluded). The Nature of Proof	262

CHAPTER IV

THE PROBLEMS OF THE PRINCIPLES OF REALITY

§ 73. The Principle of Contradiction. (The Unity of the Universe)	266
§ 74. The Problem of the One and the Many	268
§ 75. The Principle of Sufficient Reason. (The Problem of Change and the Permanent)	271
§ 76. The Unity of the World-Ground	273
§ 77. The Principle of Causation	274
§ 78. The Persistence of Force	277
§ 79. The Doctrine of Evolution	278

PART III

THE PHILOSOPHY OF RELIGION

PART IV

ÆSTHETICS

PART V

THEORETICAL ETHICS

PART I

INTRODUCTORY

CHAPTER I

THE CONCEPTION AND DEFINITION OF PHILOSOPHY

§ 1. *The Two Chief Kinds of Events*

IF we examine the events, manifestations, or phenomena that make up what are called the processes of nature, we shall find that they may be grouped into two classes. These two classes are *States of Consciousness* and *Motions of Bodies*. Let us take two such happenings as the feeling of joy and the boiling of water. The latter we shall find to be the separation of particles that make up the water. The heat of the fire beneath the water, or, in other words, some very small bodies in motion either pass themselves from the fire or set other like bodies into motion and so finally give rise to at least an increased motion of similar small bodies between the particles of water. This last has as a result the separation of the particles of water, or boiling. The boiling is the motion of bodies. Similarly we find that the melting of snow, the burning of wood, the blowing of the wind, etc. are all motions of bodies.

If, however, we turn our view to such events as the feeling of joy or pain, or the emotions of anger, jealousy and gratitude, we shall find something quite different. It is true that,

when another being feels joy, we see his face light up, his eyes grow bright, and other similar physiological changes in him. These, however, are not what we mean by his feeling joy. Again, could we examine thru a microscope—one vastly more powerful than any man as yet has made—all the changes that take place in the nervous system of him that feels the joy; we can say that we should not then discover the feeling itself. Every attempt to gain a view of this thru the examination of the man's body or any other body in the universe promises no success whatever. It is a well-known doctrine of psychology, that no amount of knowledge of physiology and physics gained by the man born blind will enable him to learn what light is in the sense that his seeing neighbor is acquainted with it, nor will it help the man born deaf to experience what it is to hear. If, however, some operation give sight to the blind patient, then there comes to him an experience that in his former state was absolutely impossible. He now perceives the color blue and knows that he has never done so before. Why is it that the blind can never gain this perception? It is true that they cannot see the motion of bodies, but they can none the less become well acquainted with them thru the sense of touch. Now no matter what motion in the universe we conceive the blind to become acquainted with, we do not believe that he will be on this account one iota the better informed as to what is "seeing blue." Similarly no matter what motion we examine, in spite of our advantage over the blind man in that we are infinitely better able to observe visible motion, the object of our search, we are just as unable to discover the joy we ascribe to our fellow being. In short, we come to this great truth, that the only consciousness "I" can perceive is "my own consciousness." Now were the consciousness of other men the motion of some body, even tho that body were very small indeed, we should still feel no other

difficulty than a technical one to our being able to perceive it. Consciousness, therefore, as far as we yet know it, is not the motion of a body.

§ 2. *Consciousness Non-Spatial.*

Literature. Introduction to Philosophy, by Friedrich Paulsen, 3rd Edition; translated by Frank Thilly, New York, Holt & Co., 1895, pp. 76-83.

But if consciousness be not the changing of place of some body, is it anything that we can say exists, or is in space at all? If it be in some place and be extended, why theoretically speaking can we not see it? Why can we not touch it, move it, etc.? If it be in some place and have no extension whatsoever, is it anything at all? The geometricians speak of a point, and their point no doubt has much meaning. It is however an abstraction and we cannot imagine such a thing in the concrete; this is the best of evidence that consciousness as we perceive it cannot be a mathematical point. For us any thing in space, or in any place has extension; and when we speak of position alone by itself, we are abstracting from extension one of its characteristics, and are no longer dealing with the concrete that can in any way become the object of sight or of touch or of any other sense-perception. Hence it cannot be that consciousness as we know it is a non-extended point in space. This same result is gotten when we observe directly our own states of consciousness, e. g., a feeling of joy. Surely what I refer to when I say that I have such a feeling, is not as far as I am acquainted with it an unextended something in space. In short what we mean by consciousness as descriptive of our feelings, our perceptions, etc., is not anything moving in space nor anything whatsoever in space. *It is in fact non-spatial.* We must indeed say, consciousness is nowhere, meaning thereby it does not exist in space.

§ 3. *The Definition of Consciousness.*

If we look again at the motions of bodies and states of consciousness, we do find this much however common to both. All exist some length of time. A motion having no time duration and likewise a state of consciousness lasting no time are for us absolute zeros.¹ Our result thus far then is, that both bodily motions and states of consciousness exist in time, but that motions and bodies alone exist in space. This then is the distinction that we shall adopt as obtaining between the two. Consciousness is merely temporal, bodily motions, or physical phenomena are both temporal and spatial. The two exist in time. This characteristic, existing in time, we shall refer to whenever we call anything an event. Consciousness and motions of bodies both are therefore events, the latter spatial events. *Consciousness thus is a solely temporal event.*²

§ 4. *The Stimulus of Consciousness*

The distinction between consciousness and physical events has never been successfully broken down. Here we shall assume the truth of the same and shall wait till later in our discussion to give the theories and problems concerned with this division.

The relation that the two orders of events bear to one another is among the problems to be considered later, but we must speak somewhat about this relation here in order to make clear the meaning of a word that we shall use.

As far as we know, consciousness never exists except in

¹ Cf. Kant, Kritik der reinen Vernunft, S. 214. Zweite Aufl.

² We then get this formula :

Events { Physical Events.
 { Psychical Events.

The conferentia consist of the presence of time duration, the differentia of the presence or absence of spatiality.

uniformity of co-existence with certain physiological changes in the central nervous system.¹ Perhaps we should extend this statement so as to include the possibility of the existence of consciousness in uniformity of co-existence with all physiological and even all physical events.² But all we need now consider is that no satisfactory evidence as yet can be shown to allow us safely to say that human consciousness exists or can exist apart from nerve events. We may then assert that a uniformity of co-existence obtains between human consciousness and certain brain events.

These brain events alone might be called strictly speaking the stimuli of consciousness; but as we know that these processes are caused by others and these in turn by still others, till in most cases we come to certain events in our organs of sense, we may speak of any part of this chain as stimuli. In this way we get a uniformity of sequence between consciousness and certain nerve events, *e. g.*, light rays striking the retina of our eyes cause us, a small fraction of a second later, to see the color red. Now the events in the retina of our eyes here referred to, are in uniformity of sequence with the consciousness we call "seeing the red color." But between the time of these retinal events and the consciousness, many other nerve events have taken place. The current or charge has gone inward by way of the optic nerve and certain changes have occurred in the brain centres. Now we are led to infer that some of these last changes take place at the exact time when the given consciousness appears. In other words certain brain events are in uniformity not of sequence, but in that of coëxistence with our consciousness. Thus when we speak of the stimuli of con-

¹ This statement of course is equally true whether we accept the doctrine of Parallelism or that of Interaction.

² Such a Panpsychism is to be found in the teachings of Spinoza, Fechner and Paulsen. *Cf.*, Paulsen, *Introd.*, p. 91 ff.

sciousness we mean either these brain events that exist at the same time as consciousness or some events that belong to the chain of causation leading back from such a brain event perhaps to the organ of sense, perhaps still farther back to the physical event stimulating this organ or even still farther back.

§ 5. *The Threefold Classification of Consciousness*

The classification of consciousness to be considered properly would need a previous discussion of many psychological problems that for our present purposes we may avoid. Then, too, where the greatest difference of opinion exists is concerning the character of volition. The sort of consciousness, however, with which we are chiefly concerned is that of knowledge. Hence without attempting to deal with the problem at length we shall accept the old classification of conscious states into Knowledge, Feeling and Will, and pass at once to the examination of the character of the first, namely, Knowledge.

§ 6. *Knowledge*¹

What is Knowledge? We need not here give a description of knowledge such as a text-book on psychology would offer. What is essential to our present problem is to show a certain characteristic of knowledge that makes this sort of event preëminently a subject for philosophy to investigate. This characteristic consists in the fact that *knowledge always has an object*. In this respect it is different from all other forms of consciousness.

But what do we mean by knowledge having an object? First, we must not confuse the object of knowledge with some

¹ Cf. Bradley, *Appearance and Reality*, 2nd Edition, Chap. XV. Sir Wm. Hamilton, *Lectures on Metaphysics*, Vol. II., p. 66ff, and I., p. 218f. Marvin, *Die Gültigkeit unsrer Erkenntniss der objectiven Welt*, Halle, '99, § 8.

stimulus that may be a link in the chain of events giving rise to consciousness. It may happen that such a stimulus and the object are one and the same thing; but, even in this case, it is one and the same thing looked at from two quite different standpoints. It is called stimulus only because it plays a part in the occurrence of consciousness. It is called an object for a quite different reason.

The object is always, sometimes most faintly, reflected or mirrored in consciousness. The stimulus is generally not at all pictured by consciousness. Often, however, instead of the object being pictured by consciousness, a symbol takes the place of the original. Hence in either case *in this broadest sense* the object of knowledge is related to the knowledge itself, figuratively speaking, as original to copy. For instance, I may remember some person that died in my infancy. The mental image of that person may be most indistinct, yet in my memory I have none the less this faint copy of his likeness. But often the object of knowledge is present to consciousness simply by means of some symbol. Thus when we read a book describing some distant land, during part of the reading we may form some mental image based on the narrative: but much of the time we read without any other mental image than that of the printed page plus the consciousness that we call subjectively the act of reading. That is, the words themselves play the whole part of the object of our thought, tho that object may be men, houses, ocean or anything else. In other words knowledge is always a knowledge of something and this something is always other than the actual knowledge itself. Knowledge may picture this something quite clearly, most faintly or only thru some symbol, such as word-ideas, be these visual, auditory or motor. But the most important characteristic of the object is this otherness.

This otherness may be of two kinds. The object may not be

a state of consciousness at all, it may be in short a member of the spatial world. On the other hand the object may be some other state of consciousness than the knowing state itself. Secondly, the object may be temporally other than the act of knowledge. It may be before or after it.

The reader may perhaps here ask, cannot the act of knowledge know itself? Strictly speaking, it cannot. To be known it must be known by another cognitive state. To use the language of psychology, were there present in knowledge only a perceptions-mass then the state might know itself. But we here use knowledge only of such a state as has the *apperceptions-mass also present*. This otherness then is a permanent characteristic, that is, the act of knowledge and its object are two.

Now two things in that they are other than one another are said to be objective, or what means the same thing, they transcend one another. Knowledge is then a consciousness that has for its object something that transcends it. The very name object states this. Now this characteristic of knowledge by which it deals with a transcendent event or object we call a self-transcending act. Knowledge is thus a self-transcending act. It is one thing, its object another. Yet it transcends itself and deals with something other than itself, makes this something its object and in so doing is said to be a self-transcending consciousness. Now knowledge is distinguished from all other things that we know in the universe because of this self-transcendence. All other things do not, as far as we know, transcend themselves. They have no object. Knowledge then stands alone in the universe and, because of this characteristic, forms a problem requiring most profound investigation.

§ 7. *The Formulation of Knowledge*

The problems that arise from knowledge being a self-transcending event we shall consider later. Here it is our purpose to describe the two great classes of knowledge, the formulated and the non-formulated. The non-formulated is first in coming into being. It is the only knowledge of the brute world and of the childhood of the human race and of the individual man. The non-formulated knowledge is the but little systematized knowledge which makes up the greater part of our acquaintance with things about us. It is our "every day" knowledge. It is the knowledge we pick up largely from chance experience. It lacks all definite conscious organization on our part. Non-formulated knowledge is, in short, the practical knowledge of daily life.

The difference between it and our formulated knowledge is mainly one of degree, for the former grows naturally into the latter. The two belong side by side, and the earlier, or more primitive never leaves, no matter how far the formulated knowledge may be developed. When, however, the formulated knowledge has progressed as far as our own century has witnessed, we may easily distinguish between the two sorts. The formulated knowledge we ordinarily speak of as Science. In our present discussion however we shall use the word Science in a narrower sense.

Thus formulated knowledge is the conscious answer to

definite problems, which problems are in known relation to one another. Further, it seeks in its answers to arrive at universally valid solutions of these problems. It therefore consciously looks for all the evidence bearing on such solutions. In a word, it is definitely organized, it is systematic.

Of course, the reader must not forget the formulation of knowledge has degrees, and the two types are but stages in the great evolution of knowledge. The elements that in the one type come out far more clearly, tho in germ present in all knowledge, are the systematic character, the search for universal proof and for law and order in the universe, especially as expressed in the law of causation. The formulated knowledge looks for rules that know no exceptions and for principles of undoubted validity. Consciously or unconsciously, the unity of the universe is its motto and guides it in its work. Various as its tasks may be, it believes them to form parts of one greater task, the knowledge of the universe as a whole and as a unity.

As knowledge may be differentiated into formulated and non-formulated knowledge, so may formulated knowledge in turn be further differentiated into Science and Art.

§ 8. *Science and Art*

Instead of Science and Art we may use the terms Pure, or Theoretical Science and Applied Science, or again Science and Technology.

The difference between the two is contained in the distinction between the theoretical and the practical. Practical knowledge arises thus: Man finds that his theoretical knowledge discloses to him natural processes and their laws. In the knowledge of these processes and laws he discovers or seeks to discover a power that will enable him to adapt nature's forces to the fulfilling of man's needs. Thus the

laws that botany may reveal, are studied by the agriculturist with the purpose of making them means to increase the productivity of the soil, the perfecting of varieties of plants, vegetables, etc. In certain branches of medicine the knowledge gained by theoretical anatomy, physiology, organic chemistry, etc., is taken up and so adapted that it may form an art of curing diseases by means of drugs or thru the surgical operation. In the same way the engineer adapts the knowledge of chemistry, physics and other theoretical sciences to gain laws to be used in building, mining, construction, etc. The aim then of Art is to make use of the knowledge that we may have and adapt it to fulfill the needs and desires of man. Its end is, in this sense, wholly practical.

With Science, or theoretical science the case is quite different. It arises solely from one desire on the part of man, namely the longing to know the universe. This knowledge is not to serve as a means to accomplish some external end, but is an end in itself. We seek to gain theoretical knowledge because the theoretical knowledge is as such and in and for itself of worth to us. Science, then, is formulated knowledge for its own sake. Art is formulated knowledge for some end other than the knowledge itself.

Now the word science is used in many senses. We may distinguish three, two of which we are now able to point out. In short, Science may be used "*in the broadest sense*," "*in the broader sense*," and "*in the narrower sense*." In the broadest sense it means Formulated Knowledge, in the broader sense it means Science as opposed to Art, *i. e.*, Theoretical Science.

We come next to a still further differentiation of knowledge, namely, between that having as its object the formal process in knowledge and that having for its field the material content of knowledge.

§ 9. *The Distinction between the Formal and Material Sciences.*

Having distinguished between Science and Art, our next problem is to make a distinction within the field of Science. This new distinction is that between the Formal and Material Sciences.

At the beginning of our discussion we stated the difference between knowledge and the object of knowledge. We have already here the distinction we are now seeking. The knowledge as a process is the formal element, the object that this is a knowledge of makes up the material element. Thus the knowledge may be considered separately by itself, namely as a process, and as such be made the object of scientific investigation. Such a science is a *formal science*. It considers knowledge not as psychology does, or as one of the phenomena of the mental world. On the contrary it considers knowledge as a process that has all manner of things or events for its object, as a process that interprets these things and as a process that has certain laws non-conformity to which would cause knowledge to fail in its work as the formal element, would in short make knowledge invalid. In other words, all the objects of the world we speak of as objects of knowledge in some sense. As far as these become the object of human investigation they become the objects of our knowledge. Knowledge then is an element always present, no matter how the object of knowledge itself may change. It performs the task of carrying on the work of science, no matter what this work in particular may be. In short, as we have seen, all science is knowledge. It is knowledge because the interpretation it gives of the world and its processes are but different examples and sorts of knowledge. Now just as the world can become the object of our knowledge so knowledge itself as the means of interpreting the world can become the object of knowledge.

Thus we have two great classes of science, the formal and the material. Material science takes up the objects of the world and interprets them. These objects include everything that may be the object of knowledge. Thus knowledge itself, as far as it is regarded as one of the phenomena of the world may be the object of a science. This science is called psychology. It is a material science. But knowledge is more than one of the phenomena among other phenomena, it is as we have seen the ever-present phenomenon in all the work of science. The formal sciences then take up this ever-present element in all sciences, this element however that does not except in psychology make up their object, and turn it into an object for scientific treatment.

The formal sciences then are the sciences of the knowing process as such. The material sciences are the sciences of all the different objects, or things that make up the universe, knowledge included as one of such objects.

§ 10. *The Formal Sciences*

The formal process may be divided into two parts, first, the perceptive (in the broader sense) process and, secondly, the ratiocinative process.

The science that deals with the perceptive process is Epistemology. The science of the ratiocinative process is called Logic, or generally Formal Logic.

§ 11. *The Distinction between Philosophy and Science*

We have now traced the differentiation of science into two fields, that dealing with the formal process and that interpreting the material content. The former field, we have seen, may be differentiated into that of the perceptive and that of the ratiocinative processes. Our next problem is, how may the field of material science in turn be further differentiated?

To answer the question at once, this field may be divided according to the method employed in gaining our knowledge. There are two methods that knowledge makes use of in interpreting the material content. These are the a posteriori and the a priori methods. Accordingly we shall divide the field of material science by distinguishing between the knowledge gained by the a posteriori method and the knowledge that proves to be gotten a priori. The former is Science (in the narrower sense). The latter is Philosophy.

§ 12. *The a priori and a posteriori Methods*

The a priori method of gaining knowledge gets the same by immediate perception, or intuition. Excellent examples of such knowledge are believed to be found in the axioms of geometry. The only proof that a priori knowledge demands is this *direct apprehension* of the truth of its statements. Further, this proof is final. Thus in the case of a priori knowledge, *e. g.*, that only one plane can be passed thru three points not in the same straight line, we know this axiom by intuiting, or directly apprehending the content of the proposition and by perceiving at once the absolute validity of the same. No further proof than this need be offered, it being in fact an utter impossibility. What the axiom asserts could never be discovered in any other way as far as we know. Whoever disputes the truth of such a proposition after having fully understood what is meant thereby puts himself outside the bounds of any possible conviction.

When, however, we turn to a posteriori knowledge the case is different. This is gotten not by one observation, but to be proved absolutely presupposes an endless series of observations, unless it can be shown that our investigation has already exhausted all possible cases to which our a posteriori knowledge could refer. Thus when we say the sun rises

every twenty-four hours, the only possible proof of this statement is the observation of the sun at such times and for as long a period as our assertion is intended to hold good for. It is only in this way that the doctrine can become completely assured truth. Thus in the *a posteriori* method the necessary field of observation in order to gain complete proof is unlimited. The reason this is so is the fact that in the assertions needing such proof we go beyond the evidence actually at hand and posit our proposition of all similar events in the universe. Thus when we say that from the evidence that the sun has for ages past risen every twenty-four hours or thereabouts, it will do so to-morrow, we are going beyond the evidence and are making assertions about what only the future can make evident. Or again take the doctrine that consciousness is to be found only in temporal uniformity with nerve events. The only complete proof of this assertion would be the actual observation of all consciousness thruout all time. In short, in the *a posteriori* method we go beyond our premises and assert that because a given law holds good in x cases it will hold good in all similar ones.

There are two important things to be noticed in connection with a *a posteriori* knowledge. First, that proof whenever gotten is always *a priori* in character. That is, when any one offers us proof it consists ultimately in a direct appeal to indubitable evidence. Where it does not, it is not complete proof, but needs itself first to be proven.

Secondly, a *a posteriori* knowledge as a whole always presupposes *a priori* knowledge as its basis. This statement we shall consider in the next section but one.

§ 13. *Science, or a posteriori Gotten Knowledge.*

Science gets her knowledge *a posteriori*. What then is the character of the information about the world thus

gained? It is the uniformities of coëxistence and of sequence obtaining among phenomena, or events, or otherwise expressed, the empirical laws of nature.

What is meant by these uniformities? The events of nature do not take place without order, on the contrary the better man has become acquainted with them the more the presence of this order has become apparent to him. Order in nature means that under like circumstances the same event always happens. Where to all appearances the same event does not happen, a more careful investigation has generally succeeded in finding some variation in the circumstances. Now it is the task of science to find out these circumstances that once at hand are always accompanied or followed by a given event, or on the other hand to discover when some event takes place what are the circumstances that always coëxist with or precede the same. Such an order we call a law of nature.

It is however quite evident that these laws are not all of the same rank. Thus the event in question may be one that is much rarer than another event. For example, the falling of bodies in general is more common than the falling of meteors. The consciousness of the child is not as common as the consciousness of all beings endowed with souls. In other words any given event may represent itself a few events or a multitude of events. It represents a few events when we consider it in a large number or almost all of its peculiarities. That this is so is quite clear. If we desire to duplicate any object exactly it is harder to do so than when we are contented to get something but partially like it. In short the less peculiarities we consider in a given event the easier will it be to find in nature other events that we can in this sense call duplicates. This is in other words the information logic gives us about the extension and intension of concepts.

Any object belongs to some class of objects in that it has some characteristics in common with several other objects. Likewise classes of objects have some qualities in common with other classes, and so these all may be grouped under a still higher class. Thus the objects called men belong to the class of objects called vertebrates, the vertebrates in turn to the class called animals, animals in turn to the class organic structures, organic structures to the class corporeal objects. Now it is evident that all that is true of animals in general is true of men, whereas all that is true of men is not true of all animals. Hence the law of nature true of animals in general represents a higher law of nature than that true of men alone in the sense that it is of wider application. Thus the uniformities of events may have reference to but few events, to a greater number of events, or even to all events. This rising scale of the extension of laws we call higher and higher generalizations. Hence the formulation of such laws is referred to as the making of such generalizations.

Now science is in search of these generalizations and is ever working toward higher ones. It is true that a large part of scientific work is given to the discovery, observation and description of events; but this work is only the necessary beginning of future generalizations. Further it is true that mere description often interests us intensely and that we are often satisfied to stop at this point. Yet the higher our scientific zeal, the surer are we to go farther and seek in such description the raw material for generalization.

As we have seen, this process of generalization goes from lower laws to higher; and, as we have just said, the greater the scientific zeal the surer are we to strive forward toward discovering higher laws of nature. Now the laws that therefore form, as it were, the goal of science are the highest generalizations, or the universal uniformities of events. The famous doctrines of evolution, especially that of Mr. Herbert Spencer, have been attempts to formulate such a law.

§ 14. *The Presuppositions of Science*

In the attempt, however, to know the world a posteriori we always, as has been said at the conclusion of the section before the preceding one, presuppose some amount of a priori knowledge. In short Science, or a posteriori Knowledge, has presuppositions, and these presuppositions it itself never investigates, but assumes.

If this be true, nothing can be more suicidal than the doctrine of extreme empiricism that would reject all a priori knowledge. Should we do so, we should at the same time reject all knowledge.

Our thesis then is that all a posteriori knowledge presupposes a priori knowledge. Is this true? We need show in order to answer this question but the one white crow that proves not all crows to be black. If a single instance of such a priori presuppositions that is always present be produced, the case is won. Is there such an instance? Most certainly: the Principle of Contradiction. Set aside this principle and a posteriori knowledge falls to the ground. Regard this principle as a posteriori knowledge, then a posteriori knowledge falls to the ground. There is no escape from these two conclusions. If we are allowed to contradict ourselves as often as we will and our doctrines be still held valid, knowledge is gone forever. But on the other hand how can we prove this principle of contradiction? Everything we regard as proof presupposes it. To prove it we have to presuppose it: how then can we prove it? The only way we can assert its validity is a direct appeal to reason or intuition. We know the principle to be valid, but only by an a priori method. This alone is the way we can know it. Therefore a posteriori knowledge presupposes a priori knowledge. To what extent, it is the work of philosophy, as we shall see, to determine.

§ 15. *Philosophy, or the a priori Science*

An interpretation of the universe gotten a priori we shall call a principle. Science we have seen to be an a posteriori knowledge of the universe and its field to be the laws, or uniformities of nature. As science or any other interpretation of the universe that may validly exist presupposes some at least of the principles of nature, philosophy may also be called a science of the presuppositions of all the interpretations of the universe. This latter definition, however, may be found not to cover all the field of the principles of nature. The definition of philosophy that we had best adopt is the Science of the Principles of the Universe.

We get then as a further differentiation of the field of science in the broader sense, the empirical laws of nature and the principles of nature. Science in the narrower sense deals with the former, philosophy with the latter.

§ 16. *The Evolution of Knowledge*

If we accept as the characteristic of evolution differentiation accompanied by integration, knowledge most surely has gone thru such a development. Now the distinctions, or differentiations that have thus far been pointed out since the section on knowledge represent in a general way this development. The knowledge of the infant and of the primitive man is an entirely non-formulated one, or one little unified and systematized. As knowledge progresses a differentiation gradually takes place. Part of it becomes more and more unified, becomes formulated. Here we have the stage of development represented by early Pre-Socratic science. This was called philosophy.

Now philosophy being a very ancient word and having been applied to knowledge when knowledge was comparatively little differentiated, it has been constantly undergoing changes of meaning as knowledge developed, or has become

more and more differentiated. As a consequence the use of the word in the history of science has been most various. As we see, if we go back to the early Greeks, philosophy means formulated knowledge.

The next differentiation of knowledge is into theoretical and applied, or practical formulated knowledge. This stage is clearly marked in Aristotle. Here the term philosophy changes its meaning. It now becomes the term given to theoretical science, or science in the broader sense. This meaning has been retained by philosophy generally till our own century, and is common even to-day.

But the field of knowledge has undergone further differentiation, and in turn knowledge has done so too, to accord with its field. This last differentiation belongs preëminently to the past two centuries. Men have come to distinguish between a posteriori and a priori knowledge, between the knowledge of the empirical laws of nature and that of the principles of nature. In this progress the two greatest names are those of David Hume (1711-1776) and Immanuel Kant (1724-1804).

Now philosophy in turn has changed its meaning again to accord with the new definition, and its field is finally that of the principles of nature. Thus we find in history the word philosophy, as above shown, in a broadest, broader and narrower sense; and we see that its use to-day is far from settled. If however we take as the principle of defining, that the definition should be based on the highest stage, or differentiation in the development of the object defined; then we are justified in laying aside the old meanings of the word philosophy and in retaining it for the field that it has inherited, and that usage points to as the probable meaning the future will give it. We shall therefore always refer to the science of principles when hereafter speaking of philosophy.

But one further explanation: Philosophy is often referred to as the mother of the sciences. The word philosophy so used is clearly not the science of principles, but science in the broadest sense. Thus it is not philosophy in every meaning that deserves the honor of this motherhood. Science in the narrower sense has just as much right to the title. They both have a common mother. In short, all the differentiated fields of to-day are the offspring of a knowledge not so highly differentiated, and this knowledge in turn is the child of a knowledge still less developed, and so on back to the very beginnings of knowledge in the race and child. To all belongs the honor of childhood. The common mother is the past, not the present.

CHAPTER II

THE CLASSIFICATION OF PHILOSOPHY

§ 17. *The Fourfold Interpretation of the Universe*

WE have seen that philosophy is the science of the principles of the universe. The next question to answer is whether we can in any way classify these principles. We saw that science presupposes principles. Now science is an interpretation of nature; and the question suggests itself, are there no other interpretations than science, and, if so, do these not presuppose different principles from those of science? In this latter case we might adopt as a basis for our classification of the principles of the universe the difference of their use as presuppositions to the various interpretations of reality.

We have then two questions to answer, what are the different interpretations of the universe? and do they employ different principles as the presuppositions of their work? The former question no doubt presupposes the answer to certain philosophic problems, and it would perhaps be more logical to discuss the matter later. We shall, however, for systematic convenience presuppose the decision of philosophy on these questions.

The doctrine that there is but one valid interpretation of nature may be called Intellectualism. It is the teaching especially of early science and in general of Dogmatism. This doctrine would seem to have met shipwreck, at least in its older form. Nothing has been plainer at times, at least to the philosophy of the 18th century and to that of the Kantian

and Positivist of the 19th century, than that the ambition of knowledge to give a complete theory of the universe cannot be realized. With all due recognition to the conquests of science, the limits that bound its field absolutely are so far from permitting it ever to boast of being a complete interpretation of reality that some of the problems weightiest to the human mind must be left unanswered if knowledge be the only one to whom appeal can be made. Since Kant the other sides of the human mind have become recognized as valid courts of appeal for the interpretation of reality where science can never possibly perform the task. Man has come or is coming, as far as we are able to judge, to be recognized not merely as an intellectual, but also as a moral, æsthetic and religious being. We have been learning that the ultimate questions of life are answered and always will be answered by the emotional and moral consciousness.

Of course the future may find need to revise much in our views regarding these extra-scientific interpretations, just as science itself has to be revised; but we have no reason to believe that what we call ill or well, the moral, religious and æsthetic consciousness in man, can ever validly be set aside as having no right in the answering of life's most important problems.

We shall then adopt the view, recognizing the possible need of much revision, that besides science there are three other interpretations of reality, namely, Religion, Morality and Art. It may be that a further revision would make more divisions or reduce these three to fewer. We may, however, for our present purposes set aside this possibility and adopt the fourfold classification of the interpretations of the universe.

§ 18. *The Disciplines of Philosophy*

Having accepted an answer to the question how many interpretations are there of reality? we have as our next

problem to decide whether these interpretations employ different principles as pre-suppositions, and if so, how may we classify philosophy on the basis of this difference? The former question we must here answer dogmatically by the word yes, leaving it for a later discussion to justify the same.

The principles then of each interpretation are different, or more accurately each interpretation makes use of different principles, leaving aside the question whether some may prove to be common to all interpretations.

Regarding the classification of philosophy, we may adopt as that which will prove most satisfactory one based on these different interpretations. Otherwise put, it is because of a difference in the character of the principles of nature revealed to us a priori that a difference of interpretation of nature is possible. The presence of a fourfold interpretation we take to be evidence of the existence of a fourfold division of the principles of nature revealed to us. Man's threefold consciousness informs him of the world, this threefold consciousness in so doing has in each case its presuppositions. The emotional consciousness however may be divided into two classes, that called the aesthetic consciousness and that named the religious consciousness. We shall then classify philosophy into four disciplines, each being the science of the principles of nature as interpreted by one of these forms of man's consciousness.

We thus get four philosophic disciplines, Metaphysics, Aesthetics, Philosophy of Religion and Theoretical Ethics.

Metaphysics is the science of the principles of reality as far as reality is interpreted by Knowledge.

Aesthetics (in this narrower sense) is the science of the principles of reality as far as reality is interpreted by the Aesthetic Consciousness.

The Philosophy of Religion is the science of the principles of reality as far as reality is interpreted by the Religious Consciousness.

Finally, Theoretical Ethics is the science of the principles of reality as far as reality is interpreted by the Moral Consciousness.

The expression Epistemology, or the Theory of Knowledge, is generally used to denote Metaphysics and sometimes to include both the material science, Metaphysics, and the formal science, Epistemology. We had better, however, retain in our discussion the ancient term Metaphysics.

§ 19. *Philosophy as a General Theory of the Universe*

Now in that philosophy deals with all the principles of reality as far as reality is the object of man's interpretation, it can give us a general theory of the universe as far as these principles reveal to us the nature of the same. In this sense philosophy may claim to be a general theory of the universe.

But we must not be misled as to the character of such an interpretation. It will be an attempt to fit together information that in truth is but fragmentary; for, as we shall see, important as they are, these principles are but scattered bits of information. Further we have no reason to believe that they either begin the one where the other leaves off or exhaust the story of reality, or do this perhaps even more than to an infinitesimal degree.

Of philosophy we none the less demand all the information these principles reveal or can reveal, be that little or much; and at the same time we recognize that man's mind is finite and therefore that the most we can hope from his knowledge either a priori or a posteriori is probably but one small stride toward that complete revelation of reality that we may speak of as the possession of an infinite mind.

The greatest lesson that philosophy can teach is humility and patience: humility by showing us that we can interpret reality but in part, patience by urging us to use to the utmost the information we can get, as against yielding to the despair of the skeptic who would bid us give up the task as hopeless.

PART II

METAPHYSICS

CHAPTER I

THE THREE CHIEF SUBJECTS OF METAPHYSICS

§ 20. *General*

WE have defined metaphysics as the science of the principles of reality as far as reality is the object of interpretation by knowledge. To discover the existence and the nature of these principles, we must investigate the presuppositions of knowledge. To learn these last we must analyze knowledge into its elements. Now the presuppositions of knowledge as such tell us the nature of reality that knowledge accepts as ultimate truth, ultimate in the sense of being accepted *a priori*, or, in short, as being themselves their own proof. If they are the presuppositions of knowledge, of necessity they must possess this axiomatic character. They must reveal to us reality absolutely.

The problem then of metaphysics is to discover what reality is as presupposed by knowledge, and further to examine the character of the interpretation knowledge gives of reality in order to learn how far knowledge accomplishes the interpretation validly and exhaustively of reality as a whole. We may then expect from metaphysics an answer to the following questions:

First, what is the nature of reality as presupposed by knowledge?

Secondly, is the interpretation of reality as given by knowledge valid, or, in other words, can any charge be rightly brought against knowledge showing that she claims to do what she does not do?

Finally, how far can and does knowledge give an exhaustive interpretation of reality?

To answer these questions, as we have said, metaphysics must analyze knowledge into its elements. These elements are three in number, and under them we shall group all the problems of metaphysics. They may thus be said to be the three chief subjects of metaphysics. They are the Given, Conceptual Knowledge and the Principles of Reality. Each of these elements we shall now proceed to explain in turn.

§ 21. *The Given, or the Content of Simple Apprehension*

Literature: Hobhouse, *Theory of Knowledge*, Pt. I., Chap. I.

In any given example of our knowledge we always find two elements present, *The Thing Known* and *The Knowledge of this Thing*. The former we call *the object of knowledge*, the latter *the knowledge of the object*. Take for example my recognition of the object I now hold in my hand; I say it is a pen and the object whereon I write I recognize to be paper. Now that which I call the pen and my recognition of the same are two quite different things. The former we regard as something quite independent of my knowledge. It might have existed had I never existed, it might be here on the desk now tho no human being were in the room. My recognition on the other hand is part of my consciousness at the moment.

Let us further examine the two. My recognition I can regard as a mistaken recognition. It may be that I am deceived in calling this object a pen. Being short-sighted

and looking at it from the other side of the room I may mistake a pencil for the pen. In fact we all know how often we make mistakes in recognizing objects. We all perhaps have passed persons on the street and have almost spoken to them, mistaking them for some acquaintance. Again we have seen some object far ahead and have thought it to be a man, but coming nearer have found it to be only a post.

Now in all these cases where does the error lie? We have seen that there are two things in question, the act of recognition and the object recognized. Is the mistake, or falsity, in the object or in our knowledge, or recognition of the object? Clearly the knowledge, or recognition is at fault, not the actual object itself. The object is absolutely the same whether I call it pen or pencil. The knowledge however is different. In the one case we recognize the object as a pen, in the other as a pencil. The former was the correct recognition, the latter the false one.

Here we come upon a fundamental truth. Just as in this case, so in all cases of knowledge, or recognition, we err or are correct in *our knowledge*, or *our knowledge* is true or false. The object of the knowledge however is never true or false. Whether we are right or wrong, the thing we recognize or think we recognize remains the same. If we see an object and a savage sees the same object, and if we recognize the object as a watch, and the savage does not know what it is, but finally calls it some animal, the object in both cases is the same, the knowledge differs. We do not say that the object mistakes, is false; but we regard the knowledge of the savage to be imperfect.

Because the objects of knowledge are thus never regarded as true or false, but only the actual knowledge, we call them facts. They are facts because we never find them or even can find them to be false. Whatever error exists, look as we will, we always find it on the side of knowledge, never on the side of the object.

"But," you say, "how about my dreams? I see objects in my dreams, then I wake up and find these objects are not facts at all, but only a dream." Here, however, you quite mistake: you see something in your dreams, you recognize it as such and such an object, *e. g.*, a house, but it is not a house. It, the vision in your dream, existed and was fact. It was the taking the vision of the dream for a normal perception, in other words, for the vision of your waking states, that made up the error. In short, you mistook the vision of a house for a real house. When you awoke, then you recognized it correctly and said it was but a dream, it was not a real house. Hence the object of your knowledge was a fact, but the knowledge was false.

Take for example an extreme case. Let us say, here is an insane man that has the hallucination that some other man, his most bitter and relentless enemy, is constantly following him. In spite of all our endeavors to persuade the man, he still persists in asserting that he sees him, that his enemy has a pistol to shoot him, etc. Now, is the object of this insane man's judgment a fact? Most assuredly it is a fact. The error lies in his recognition of the fact. It is in reality but an hallucination. This he fails and persists in failing to recognize. He insists that it is no hallucination, but a truly normal visual perception. The fact is there, the error is the false recognition of the fact.

But let us take another example. "I took a walk yesterday afternoon." Some one that was with me the whole day may object and say, "No, you did not take a walk yesterday, but you stayed home the whole day; it was the day before yesterday that you took the walk." "Here," you will say, "is an example where the object is not a fact. The walk you took is after all no object at all. Namely, yesterday's walk is pure imagination on your part." You are quite right, "yesterday's walk" is pure imagination on

my part; but here again let us first make sure whether this be the object or the false recognition of the object. I think we shall find it to be the latter. Now, what is the object that I am recognizing here? Is it not memory, my remembrance of some walk that I took? This remembrance takes the form of a remembrance of a walk yesterday. So far my recognition was correct. Had I said, "I remember distinctly, tho my memory may mislead me, having taken a walk yesterday," then I should not have made an error. I do remember; the trouble is my memory is not in agreement with what actually occurred yesterday. The error was therefore the regarding my memory as trustworthy to inform me what happened yesterday. In other words, I recognized my memory as trustworthy when in reality it was not such. I really did have such a remembrance. The remembrance, however, was not trustworthy. It was none the less a fact. The fact, however, I did not recognize correctly.

No matter how many times we may multiply the cases, the result will be found always the same. The object we know, or believe we know, is a fact; the knowledge, or interpretation of the fact is alone that which may be called true or false.

Let us consider further how we may best describe these facts. Are we to regard them as our perceptions, be these perceptions sense or self perceptions or not? Are we to say that error arises solely where judgment exists, and that any cognitive state not a judgment cannot be regarded as true or false, but must be held to be a fact? Let us first see what these two questions mean. First of all, we may hold that unless we make some assertion about something, unless, in other words, we say something about it, there is nothing done on our part that could possibly be regarded as false. For instance, we may hold that if I see an object across the room, it does not matter whether there really be such an ob-

ject there or not, provided that I seeing it do not make some assertion that the object is there. We cannot be convicted of error because we happen to have a vision or a dream. The error makes its appearance first when we assert in some way, either so others can hear us or to ourselves, that we really see normally what we have a vision of.

This theory is certainly false when stated in the form of the doctrine that what psychology calls a judgment must first be made before error or truth may be ascribed to our cognitions. This is wholly to mistake the most usual form of our cognitions. Most of our cognitions contain no judgment whatsoever, and no one can rightly hesitate to call them true or false, unless he change wholly the ordinary meaning of these words. When we from the other side of the room see a pencil, and, coming nearer, find that it is a pen and not a pencil, our perception is held to have been false. Our perception was not merely a vision of the object, it was a recognition of it. If we walk straight along a passageway and suddenly run against a mirror, we certainly have made a mistake. The mistake was evidently that we recognized something as a continuation of the passageway that in reality was a mirror. We had a false perception. In other words, psychology shows us that much simpler cognitive states than judgments must be called recognitions. They are recognitions because our previous experience goes to make them up. It is not our first meeting with the object, but in some of its elements perhaps even our millionth.

Thus if we beat a dog with a whip and the next day show the dog the whip and he crawl behind the sofa; it is quite clear that the dog's past experience has much to do with his present conduct. The dog needs no more than see the whip when off he goes. The whip, when perceived, is in the very act of perception recognized.

Thus no matter what the psychologist may call a judg-

ment, we must regard any form of cognition that does the work of a judgment as a judgment in so far as to ascribe to it truth or falsity. We must claim that any event whatsoever that leads us astray, that, in short, is for us a false interpretation of something, that that event is false; that further any event that is for us a true interpretation, that equals or serves the purpose of such an interpretation, is for us a true event.

Hence we may answer the two questions under consideration as follows: Perceptions, being always to some extent a recognition, or an interpretation, are to be regarded as true or false. We must then not confuse the object with our perception of it. Our perception can be false, and looked at from this point of view is not a fact.

But what are the facts? How are we to describe them? You say, "What I perceive is not a fact because it may be true or false, how are we to get at the facts at all?" For our present purposes we had best answer, our perceptions are in character twofold. They give us the fact, but along with the fact its interpretation. If we could get back to the early state of infancy, where we believe things are seen but in no way recognized; then we should be in a position to say (provided you regard sensations as cognitions) we have a cognition of the object, but a cognition that cannot be called true or false, and so must give us fact with no admittance of interpretation of the fact. But in the developed consciousness our past experience stored up in us in some way is constantly at work putting itself into every cognition, so that it is an exception of exceptions to have a sensation that is not any more than a sensation, namely, that is not a perception.

In other words, we see, hear, and touch things that we have seen, heard and touched hundreds of times before, that is, either these very things or things similar to them. We see

a certain man for the first time, but we have beforehand seen thousands of other men. The object is no stranger therefore to us. We recognize the same at once as a man. We, in fact, perceive a man. But we not only perceive the man, we perceive him also a certain distance from us, etc. As psychology tells us we have learned to see objects, to see them distinguished from the objects about them, to see them stand out in space, to be at a certain distance away, etc. Our developed consciousness has become so wonderfully well adapted to the greater number of our needs that our perceptions, simple as they seem from the point of view of introspective psychology, perform the office of very elaborate interpretations.

On the other hand, however, we have said that they none the less bring us along with the interpretation the facts, or bring us into direct contact with the facts. If we then lay aside (leaving out the question how far this is possible) that element of the perception that makes it an interpretation and strive to get merely what it tells us and stop regarding it or using it as an interpretation; then we may say we have come directly to the facts. The facts are what our eyes tell us, if we but stop accepting the interpretation given in our perception as either true or false. If we say the object we now see, no matter whether it be the book our perception tells us it is or not, is a fact; this illustrates our meaning.

Perhaps it is not a book. None the less that I see such an object, no matter whether my interpretation be true or false, is a fact. The object is a fact, I do not care whether I be dreaming, normally seeing or having an hallucination, there the object is. I see it. No matter what it is, it is a fact directly given. Whether it be a book, a box, a picture, or anything else you wish, there it is. I cannot deny its existence, because my consciousness directly gives me the object as a fact. In short, it is a given fact; it is not something that comes under

doubt or is to be discussed, it is, in other words, given. It is the Given.

Now these facts that our consciousness is constantly furnishing us with are the foundation of all proof. When I make a statement and any one doubts what I say, he has a right to ask me, where are the facts? Before requiring from him theoretically his consent to my statement I must tell him just how he can get hold of these facts, or I must do my best to bring the facts to him. I make the statement, "Yonder on top of the mountain stands a log cabin." My eyesight being better than his he fails to see the object I see, and from some further ground perhaps doubts the truth of my statement. He asks, where are the facts? I answer, if we walk straight ahead for fifteen minutes you will clearly see the object, the fact; or again, if you look thru this glass you will clearly distinguish it amid the cluster of trees. He sees the object. I have pointed out to him the fact. He is intellectually satisfied.

It is the same with all our knowledge. It is a knowledge about facts, and is proved true and can be proved true only by an appeal to the facts. Whoever fails to get the facts must fail to see the proof. Our sciences are examples of this. We have our text books, but the most important part of our learning is in the laboratory itself, where no man's opinion, but the facts themselves persuade us of the correctness of the teacher's views. It matters not what this laboratory may be. It may be the chemical laboratory, or the wide world itself: it may be our own after life, or what we can get only by turning our eyes inward on our own conscious states and seeing what they look like, or, as it is called, introspection.

In all the sciences then we are interpreting facts. Our interpretation to be true must agree with the facts. Showing that our interpretation does agree with the facts is the proof of

our interpretations. But you see in all this one thing is never called in question, namely, the fact itself. We may doubt whether the scientist can show us the fact. But the fact present is something given, is a premise we have to accept. We can never find fault with him that founds his knowledge on facts. If his knowledge be supported by the facts, that is the most we can require. The facts then form the premises of knowledge, the ultimate premises. They never give rise to a *petitio principii*. For this reason they are called the Given.

We may firmly say that *the Given is the sum total of the facts or the world of facts. It is the source to which all knowledge appeals for its proof.*

But all along we have been talking of knowledge, or of the interpretation of the facts. What is this knowledge, or interpretation?

§ 22. Conceptual Knowledge

This knowledge, or interpretation is what we mean by the expression conceptual knowledge.

As we have seen, conceptual knowledge is present in perception as well as in the higher cognitive states. Its work is to interpret the facts of the universe.

Let us consider more at length this its work.

In section six we found that knowledge is a self-transcending consciousness, because it has an object. That is, it itself claims validity for information it gives us concerning something not itself. The pen I know is something different from my state of consciousness called my knowledge of the pen. It is this characteristic of knowledge that makes it true or false.

But in transcending itself, or in making assertions about something other than itself what does the conceptual knowledge do? In short, wherein does its interpretation consist?

The answer is, *it consists in the assertion of similarities and dissimilarities obtaining among facts.*

Take, for instance, this book. I call the object I now hold in my hand a book, and in doing so I am interpreting a fact. My judging this object, or fact to be a book is a conceptual knowledge. What then is it that I say about the given fact when I judge it to be a book? What, in short, does the word "book" mean?

We have already stated that a concept may be taken in two ways, as to its extension and as to its intention. Looking at its extension it is a name for a class and means all the individuals of the class. In this sense the word "book" means all books. Looking at its intension it means all the characteristics common to all books. In the latter sense the word "book" equals the *conferentia* as opposed to the individual book which has as its characteristics not only the *conferentia* but also the *differentia* that make it the individual book that it is.

If we take a sentence where the word is used in the former sense, we shall see that as far as the term tells us anything about the objects so named it is used always in the second sense. The statement, an oral tradition is not a book, means all books as such are not oral traditions. When, in other words, the tradition is once committed to writing, the written account cannot be called an oral tradition. In as far as it is contained in the manuscript it has now become a written tradition. In saying then something about all books, I mean perhaps merely to use the word to refer to certain facts. In that case I am simply pointing to them and not interpreting them when I call them books. I could just as well perhaps have said, these things now before me and all others that may be like them are not oral traditions. I use the word we may say as a proper noun, as a mere sign to refer to certain objects, and my purpose would be served

just as well had I used any other sign, such as pointing my finger, etc.

But I may have meant more than this, I may have wished to call the objects books, and in so doing say something about them. In that case my sentence really equals "these objects are books and as such are not an oral tradition." In this case and in the original case, *i. e.*, where I judge the object in my hand to be a book, I am using the term in its intension. Thus wherever a concept is used to interpret a fact, to say anything about the fact, it is used in its intension, namely, to signify the conferentia. What then do I say when I call an object a book? I declare it to have certain qualities, or characteristics in common with all those objects that custom or usage has agreed to call books. In other words, I am comparing it, the given fact, with all other facts of the universe and am saying it is like certain facts called books, and in so far as it is like these facts it is unlike all other facts in the universe.

That is, in our experience we find certain facts similar and others not similar. It is as tho a stranger who had never seen such before were to pick up a deck of playing cards. He looks thru the pack. First he notices that the cards are of two colors, one red, the other black. Next he looks thru the red cards and finds that some have on them diamond-shaped spots, others heart-shaped ones. These also he separates into two packs. He looks again thru each of these packs and finds that one card has but one spot, another two, another three, etc. Thus he goes thru the whole deck and finds that each card has certain characteristics that make it different from all the other cards, yet at the same time no one characteristic not possessed at least by three other cards.

Thus he can speak of the aces, of the kings, of the diamonds, spades, etc., of the black cards and of the red cards. Each card always belongs to some one of these

classes. Yet no two cards agree in being black and spades and, *e. g.*, aces all at once. This or a similar combination makes the card different from all the others. Whereas, being an ace, a king, a club or a red card marks its similarity to the other cards.

The same is true in the universe of facts. In becoming better and better acquainted in the world we notice here or there differences between facts, at other places or times similarities between facts. The result is that facts soon come to be known facts, defined and differentiated facts. They come to be more and more "facts like other facts" and "facts unlike other facts." Now this process of taking facts out of the order in which they happen (as Lotze puts it) and into the order in which they belong constitutes *conceptual knowledge*.

§ 23. *The Principles of Reality*

We come next to the consideration of the principles of reality. We shall mention four principles: but for the purpose of the present discussion we may afterward set aside two as being sufficiently represented by one of the remaining two. The four principles of reality to be mentioned here are: the Principle of Identity, the Principle of Non-Identity, the Principle of Contradiction and the Principle of Sufficient Reason.

The principle of identity tells us that a thing is identical with itself. Written as a formula the principle is $A = A$.

The principle of non-identity tells us that a thing in as far as it is identical with itself is different from every other thing in the universe. $A = \text{only } A$.

The principle of contradiction presupposes these two principles. It tells us that a thing is not its contradictory. A is not non - A .

Finally, the principle of sufficient reason tells us that everything has a sufficient reason, or ground both of its existence and nature, namely, both why it is and why it is what it is.

CHAPTER II

THE PROBLEMS OF THE GIVEN

§ 24. *Introductory*

OUR next task is to learn what problems may arise concerning the Given. That is, what are at least the chief questions that may be asked concerning it? These may be grouped under the answers to one main problem. This problem is, does the Given make up the sum total of reality, the whole universe; or are there realities, or entities beyond the Given, which cannot be referred back to the Given as the evidence, or facts upon which the assertion of their existence is founded? In short, is the assertion of the existence of everything nothing more nor less than an interpretation of the Given? Do we or can we correctly assert the existence of anything and not thereby be interpreting the facts, or data described here as the Given?

If we answer these questions by saying there is reality beyond the Given, then we are *Realists*. If, however, we answer no, all reality is within the Given or must be referred back to the Given, then we are *Idealists*.

§ 25. *Realism vs. Idealism*

This problem belongs to the last two centuries. Tho from our standpoint we may call philosophers of an earlier date realists, they are realists in a dogmatic, not in a critical sense. That is, the problem in its entirety has not been opened up and hence is not for these philosophers a matter of scientific research.

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merely as a possibility: that no information we have gives us positive evidence of its existence; and, on the other hand, that we can say with complete assurance, that no proof of non-existence can be found. We declare it to be a possibility because there is no decisive evidence either way. In this case our doctrine is *Problematism*.

(b.) In the next place we may go a step farther and claim that there is evidence, or proof of the existence of the transcendent world, but that we as finite intelligences are utterly unable to tell what that world is, in short, to interpret it. We are then *Criticists*, and our doctrine is called *Criticism*.

(c.) Finally, we may reply that we not only know the transcendent to exist, but also know what it is. In other words, we are able to interpret it. Our doctrine is then called *Dogmatism*.

The answers to these questions raise the second main question as given above. This question was composed of three, *i. e.*, what is the transcendent world, what is the Given and what is the relation between the two. From the *Dogmatist*, who claims to have a knowledge of what the transcendent world is, we shall claim an answer to all three questions, from the *Criticist* an answer to the last two, and from the *Problemist* an answer at least to the second question will be expected.

1. How is the Transcendent World known?	{	Rationalism.
Empiricism.
2. To what extent is this known?	{	Dogmatism.
Criticism.
Problematism.

3. What is its nature?	{	Cosmology	{ Singularism (Pantheism).
			{ Pluralism { Theism.
Atheism.
	{	Ontology	{ Monism { Materialism.
Spiritualism.
			{ Dualism.
Infinitism.
4. What is the Given?
5. What is the relation between the Given and the Transcendent World?
{	Pantheistic.
	Pluralistic.

§ 27. *How is the Transcendent World Known?*

The first question, we have seen, to be asked him that claims a transcendent world to exist or possibly to exist is, what leads him to this conclusion? In short, how does he get his knowledge, or what is the evidence on which the same is based? We must be very careful here how we use the word evidence. There is a broader and a narrower sense of the word evidence. In the broader sense evidence is everything that makes up the ultimate proof of any proposition, no matter what that proof may be. In the narrower sense evidence is a particular kind of ultimate proof, namely, facts. It is in the broader sense we here used the word. We ask then the realist what is the ultimate proof of his doctrine.

It is evident that the possible answers to this question will be different in accordance with the difference of the character of the proof offered by individual realists. We have then to ask ourselves what are the kinds of ultimate proof. The kinds are two, as clearly follows from our discussion of the elements of knowledge. These are the Given, or facts and the principles, or a priori assertions concerning reality. We, therefore, shall find that realism has two possible theories of how the knowledge of the existence of the transcendent world

is obtained. The one, of course, will claim that some or all facts give witness to the existence of that world. The other will reply, our proof is not the facts, but principles, or a priori knowledge, asserting or implying the existence of such a transcendent world.

The former answer is that of Empiricism, the latter that of Rationalism.

§ 28. Realistic Empiricism

Literature. Paulsen, Introduction to Philosophy, p. 384-389; Windelband, History of Philosophy, section 33.

Realistic Empiricism, as we have just seen, seeks the ultimate proof of realism in the facts. Presupposing the results of a later section, namely, that dealing with the realistic conception of the given, we may say empiricism identifies this proof with sense-given knowledge. The data of sense then form the field whence it gets its premises.

As a matter of fact, however, realistic empiricism has never been successful in securing its proof from this field alone. On the contrary, when it has been held by its followers closer and closer to the data of sense, it has constantly proceeded in the direction of idealism. Yes, we may say that an absolutely consistent realistic empiricism would be forced to avoid contradiction by adopting idealism.

Thus we see the realism of Locke gradually destroyed by his successors, and this in no other way than by holding his philosophy strictly to its empiricistic presuppositions. Berkeley annihilates the transcendent material world by showing that the data of sense give no evidence of the existence of more than their own content, with the exception of the spirits to which they belong. Hume (Treatise, part 4, sect. 2) urges this still more strongly, including not only the material but also the spiritual transcendent. Had Hume himself been wholly consistent, he must have been an ideal-

ist; but his speaking of "natural powers" that seem to be referred to as transcendent realities makes him still a realist.

As an historical fact, however, philosophers have claimed to find in the data of sense proof of the existence of a transcendent world. In order to do this they have, however, in all cases surreptitiously introduced rationalism into their system. Hence carefully analyzed all realistic empiricism is in part rationalistic and therefore has been obliged to get its proof from more than sense data. In short, the realism of empiricism has always been an attempt to explain how the data of sense arise. It seeks an efficient cause of the occurrence of these data, and can find this cause nowhere except in a transcendent world. But the assumption of the need of an efficient cause, or, in short, of any explanation of the arising of sense data, is a foreign element in the empiricist's metaphysics. He has no right, if he will be self consistent, to admit the need of any such explanation. In doing so he is forced to become in part a rationalist in order to justify his doctrine. That is, he appeals to a principle, an *a priori* assertion regarding reality, namely, to the principle of sufficient reason. The only way in which the proposition forming the content of this principle can be known to be valid is by direct appeal to the reason, or thru *a priori* knowledge. This we find Locke to do. The problem clearly presents itself to him that the world without the given can be brought under doubt. But how does this world arise? We must suppose a transcendent world with its primary qualities as the cause of our ideas. Hume seems no less to have held to this view. The impressions after all, altho they tell us nothing of a world beyond their content, none the less have some unknown natural power back of them whence they owe their being. Thus the realistic empiricist seems all along to have been obliged to get some means thru which he could read into the data of sense more than later empiricism allows to

be there. The content of sense must be forced to reveal more than itself, and this forcing was always a rationalistic element.

Of course, one way of escape always remains open to the realistic empiricist, if he choose in spite of Hume to take it. This is to affirm that the data of sense do reveal directly the existence of a transcendent world. Hume may ask him to produce the impression, and, when produced, deny that it contains any such information; but the other may with equal emphasis claim that it does. Thus the deadlock would be complete. As we shall see later, when two parties disagree after the ultimate proof has been appealed to, as Hume taught us, further argument is in vain.

§ 29. *Realistic Rationalism*

Literature. Paulsen, p. 378-384. Windelband, section 30.

The rationalist, on the other hand, sees in the data of sense not the revelation of the transcendent world. In fact, he finds no hope whatever in gaining a true knowledge of reality, if he must depend upon the senses. The senses are more or less illusory. The only escape from error is thru the appeal to a higher function of knowledge, the reason, the nous, the lumen naturale.

Analyzed, rationalism simply teaches that the true ideal of knowledge is not a posteriori, but a priori, and that only in as far as we are able to have an a priori knowledge of the universe shall we ever be able truly to know it. All the manifold terminology of rationalism, from the "nous" of the Greeks and the "recollections" of Plato to the "clear and distinct perception" of DesCartes and Spinoza and the "synthetic judgments a priori" of Kant, is no more than the doctrine of a priori knowledge as explained in a previous section.

Now the rationalist soon finds the a posteriori knowledge

self-contradictory. He finds sense unable to give us satisfactory information about the world, and turns to reason to give us by its insight the desired revelation of reality. Des-Cartes discovered no escape from an absolute skepticism and despair of knowledge other than the clear and distinct perception of "my" own existence.

This clear and distinct perception gives me a knowledge of God as the infinite and most perfect being and of the material world without me. Were I dependent only upon sense all I should have as knowledge would be the content of sense alone. This would never give me a knowledge of a world outside consciousness. The *lumen naturale*, the reason, is, however, able to get beyond the data of sense. It is able to tell me of a world about which the given alone would be unable to inform me. Reason can transcend the barriers of the finite experience and reveal to us the eternal verities of the infinite mind. It is not bound down to the finite. It is, in fact, knowledge implanted in us by the Creator to reveal in part the eternal reality; it is an innate knowledge. A posteriori knowledge, as we have seen, needs a boundless experience to furnish it its proof. A priori knowledge has its proof directly in the insight of the reason.

There is one great knowledge that can here boast of success. That science is mathematics. After Galileo had so successfully introduced mathematics into physics and mechanics, rationalism finds also in the mathematical method the secret of a successful a priori interpretation of the universe. True knowledge must do what mathematics does. Probability is no knowledge. Absolute universality alone can be called knowledge, and this can be given only by the reason. Therefore let us take from mathematics its method and have a theory of the universe proved mathematically. This ambitious task was undertaken pre-eminently by Des-Cartes and Spinoza.

§ 30. *History of Realistic Empiricism and Rationalism*

Literature: Windelband, *History of Philosophy*, translated by J. H. Tufts. Sections 6 and 8, 33 and 34.

We now pass to a short account of the chief points in the history of these two doctrines.

As the doctrine of evolution would lead us to expect, both teachings exist non-differentiated in the early stages of the individual's growth and of the development of science.

Empiricism of a naive type mixed with elements of rationalism represents the position of the popular mind and so is naturally the theory of primitive philosophy.

Among the Greek philosophers doubt soon commences to assert itself and the senses begin to be distrusted. A true theory of being can no longer be gotten from sense, reason must give it; and the theory that reason gives does not hesitate in rejecting most ruthlessly the information gotten from sense. Change, than which nothing seems more evident, is denied to exist; the reason tells us of a world without it. So the Eleatics. Heracleitus, on the other hand, finds reason to assert just the opposite. Sense deceives us by telling of a persistence of things.

In Plato the real world of Ideas is not to be gotten by sense. We know the real world by recollection. In our previous existence we did get a direct knowledge of the Ideas; now, however, nothing but traces left in us of that previous life's experience are brought to the surface by the data of sense suggesting, or reviving them. The world about us participating in the Ideas has enough of the real in it to give rise in us to this memory. The transcendent world is then known by anamnesis. Here we have the beginning of the doctrine of innate ideas. Similarly in Democritus and Aristotle rationalism holds sway. We have, however, in Aristotle's system, the highest point reached in the development of Greek metaphysics, elements pointing in the ideal-

istic direction. Reality is the individual given in experience.

In the modern Pre-Kantian philosophy we have the great realistic rationalistic systems of DesCartes (1596-1650), Spinoza (1632-1677) and Leibniz (1646-1716). They are all based on the doctrine of the *lumen naturale*, inherited from Scholasticism.

At this time, however, empiricism starts in on its great career in England, especially in the *Essay* (1690) of John Locke (1632-1704). Locke commences his essay with a vigorous attack upon innate ideas. His whole contention is for experience as the sole source of knowledge. Locke, however, did not think his own position thru, but left this for his followers, Berkeley and Hume, to accomplish. Yet this work contained in its accomplishment the denial both of the possibility of knowledge and of the transcendent world that Locke most tenaciously held to. If sense gives us all our knowledge, then sense-given knowledge is all we know. In other words, a transcendent world is a mere remnant of rationalism that the true empiricist must away with into the fire. True Hume, as we have seen, holds to remnants of the worn-out rationalism in Locke, but the death blow he has given this realistic rationalism almost justifies us in seeing in him an idealist.

Kant, true to his rationalistic bringing up, holds firmly, yet presupposes as practically not within the field of investigation, the existence of a transcendent intelligible (that is, known thru the reason world).

Following Kant comes the great idealistic movement, but not to the exclusion of realism. Realistic empiricism, however, seems now to be doomed forever, in fact, Hume has annihilated it; and, if realism is to be, it would seem that it must from his day be rationalistic.

§ 31. *To what Extent is the Transcendent World Known ?*

The next chief question we found necessary to ask the realist is, to what extent is he able to give us an account of the nature of the transcendent world. This question we saw may be answered in three ways. We may say that the transcendent world is known only as a possibility, as actually existing, and finally not only known to exist, but also known as to its nature. These answers are called respectively Problematicism, Criticism and Dogmatism. Dogmatism represents the earlier type of philosophy, and in spite of constant recurrences of periods of skepticism held its own down to the days of empiricism in England and the criticism of Kant.

We shall then best deal with our problem by giving a short statement of the dogmatic position and then of the dogmatic theories of the transcendent world, before giving a statement of criticism and problematicism. In fact, to discuss the last we must presuppose a knowledge of many of the theories of the nature of the transcendent world.

§ 32. *Dogmatism*

Dogmatism, as we have said, claims for human knowledge the ability to tell us not only that the transcendent is, but also what it is. Dogmatism is naturally the theory of the youthful mind both in the individual and in the development of science. The normal attitude of the mind toward any problem is at first to accept it. The child believes what it is told. But as experience increases, or as past experience takes a greater and greater part in our acceptance or rejection of any information, this primitive attitude changes. Experience soon brings us into conflict with views we hold. We soon learn not to believe all we are told, not to hold as permanently sure all we regard at the time as worthy of acceptance. But after some great attempt has been made to formulate a theory of the universe, or several such undertak-

ings have been made and these have to stand the test of further knowledge or upon further examination have proved inconsistent, then a reaction of a greater degree, a distrust in all such endeavors to know reality, can arise. This is skepticism. Skepticism has followed dogmatism, but skepticism could never conquer it. Skepticism has ever meant the beginning of new dogmatic attempts. Hence dogmatism must repeat and repeat itself until its successive attempts and failures have so far revealed the character of its undertakings that its true nature becomes evident. When dogmatism's true nature becomes evident then we have either its final establishment or final downfall.

This has been in short the main outline of its history, and as a consequence we expect to hear a very varied account of the world it claims to know. But in all these attempts we have the inexperienced stage of philosophy striving to gain the solution of gigantic problems. Whatever we may think of the results as to their validity, we must never forget the importance of the attempt to thought at large. Without these trials we should never have been able to get beyond them. The errors of the past have been the achievement of the highest type of thought and have been crowded with valuable information nowhere else to be gotten. Then too, these errors have not been wholly false, they have a meaning and a true meaning for all time and have contributed a permanent part to human knowledge. Seen in their real character, they were not false but were half or partial truths. Their chief error was incompleteness, and to make good this incompleteness a long experience and repeated trial were absolutely necessary. The history of philosophy gives us then man's working out the problem of reality, and, looked at in this way, it is the propædæutic of all attempts that the future or the present may have in store. No one can be blinder than him that sees in the old dogmatism only

error. It gave us our problems, and its analysis has been the first and necessary step toward their solution.

Let us now pass on to consider the answers dogmatism has given to the question, What is the transcendent world?

§ 33. *The Nature of the Transcendent World*

Dogmatism tells us that we are able to know not only the existence of the transcendent world, but also what that world is. We have now, therefore, to listen to the account this school of metaphysics gives of the nature of the transcendent world.

But before proceeding, let us ask ourselves what we mean by the nature of a thing. If we be asked, for instance, what is the nature of water, how should we answer this question? We might say water is the compound of hydrogen and oxygen. It boils at 212° F. It has such and such weight, it is of such and such a color, etc. Now, are these answers all the same in character or may they not be divided into two kinds? When we say that water is composed of hydrogen and oxygen, are we not offering a quite different answer than when giving its color? Are we not, in the former case, telling what is called the essence of water, whereas in the latter case we are stating one of its qualities? In short, would not our complete answer be the essence plus the qualities of the thing in question?

But when we reply that the essence of water is hydrogen and oxygen, have we answered this question completely? In short, may the questioner not further ask us, But what are hydrogen and oxygen? We reply, hydrogen is matter possessing such and such qualities, or characteristics. But what is matter? We answer, something that manifests itself in space, or whose qualities are all spatial. But what is this something? Here we find ourselves face to face with a great difficulty, for we seem unable to describe this some-

thing as we did the other objects. We cannot say it is a second something manifesting itself in a second way.

In short, this something appears to be a real essence or, in other words, a final answer not needing further analysis. Thus when we are pushed back to the final answer of the question what is water, we have to reply, it is something that has such and such qualities or that manifests itself so and so.

Now a something that manifests itself, or has qualities, or, again, is the subject of which we predicate qualities, is called a *Substance*. Hence thus far we may say that when we ask what is the nature of a thing, we wish to know the substance and the qualities of the same.

But is there not a great difference in the kinds of qualities a thing has? Thus water changes from a fluid into ice or into steam. Its boiling point varies with differing air pressure, etc. In short, we find that many of the qualities that an object has are very changeable. Are all the qualities variable or are there permanent characteristics? Now water, no matter how we conceive its qualities to change, always remains a composition of hydrogen and oxygen. Likewise matter, irrespective of any form that for the time being it may have, is always spatial. There consequently appear to be qualities different from other qualities of the same object in that they are permanent, whereas the latter are more or less liable to change.

We may then say that the qualities of a substance are of two kinds, the permanent qualities and the changeable qualities. The changeable qualities are called *Modes, or Modifications*, the permanent qualities *Attributes*.

Thus when we ask the nature of a thing, a complete answer would be threefold. It would tell us the substance of that thing and then the attributes and modifications of that substance as present in the thing in question.

Hence when we ask the dogmatist what is the nature of

the transcendent world, this question involves three points, *the substance, the attributes and the modes of that world.*

§ 34. *The Ontological and Cosmological Problems*

Literature. Windelband, section 31.

Dogmatism has attempted little in the way of a description of the modes beyond their general relation to substance. The reason why this must be so is quite evident when we remember that the modes have been held to be infinite. For the dogmatist it belongs only to the infinite mind fully to know the modes as a whole, and how they as such follow out of the substance. The main problems then have centred about substance and its attributes.

The attributes of substance, as we saw, are the unchanging, or eternal characteristics of substance. They therefore express its essence. The problems of the attributes deal thus with the essence of substance. Now the realistic problems concerning the attributes are called the transcendent ontological problems. They are of two kinds. The one deals with the question of the number of attributes; the other with the kinds of attributes substance has. The former problem has been answered in three ways, that is, substance has been said to have one attribute, two attributes and an infinite number of attributes. These doctrines we shall name respectively *Monism, Dualism and Infinitism*. As answer to the latter problem but two kinds of attributes have been named, even where more are said to exist, the remainder being unknown to the finite mind of man. These two are *consciousness and extension*, or what we might believe to be an equivalent, time and space.

The dualist holds that both consciousness and extension are attributes. The monist attempts to reduce one of these to the other, that is either extension to consciousness or consciousness to a form of extension. The latter doctrine is

Materialism, or in its oldest form *Hylozoism* ; the former is called *Spiritualism*.

The teaching dealing with the substance of the transcendent world is *Transcendent Cosmology*. We have then here the cosmological problems.

After having answered the ontological problems, or those dealing with the attributes of substance, what more remains to be said concerning substance? As we have seen, where one is pushed back to an ultimate answer concerning the nature of any object, this answer seems necessarily to take the form, "something that manifests itself in such and such a way." In short, after we have given the manifestation of this something, we appear to have said all there is to be said about it. If we be asked, What is this "something?" all we can do is to give its characteristics ; but the something as such, absolutely apart from its properties, we are utterly unable to describe. Therefore from the very nature of the case dogmatism cannot be called upon to describe substance further than to give its properties. But is there then no problem concerning substance other than that of its attributes and modes that dogmatism should be required to answer? There remains one, namely, is there but one substance or is there a plurality of substances, and if the latter, what is the relation obtaining among them? The answer to this twofold problem is transcendent cosmology.

If the cosmological theory reply that there is but one substance, it is called *Singularism, or Pantheism*. If it answer there is a plurality of substances, it is called *Pluralism*.

If to the question What is the relation existing among the substances? pluralism reply that there is one non-created substance and that its relation to the other substances is that of creator to creation, in short, if we receive the answer there are two sorts of substances, the non-created and the created, the pluralism is called *Theism*.

If however pluralism deny any such fundamental difference between the substances as that of creator from the created, then it is *Atheism*.

We thus get three cosmological theories called, according to their answer to the so named theistic problem, Pantheism, Theism and Atheism. These theories however should not be confused with the problems of religion. If Intellectualism have the right of the controversy and if the religious problems be one and the same with this metaphysical problem, then no doubt we are here dealing with religious questions. But as a matter of fact the theistic answer may be religiously speaking atheistic. Thus the God of metaphysics may be a blind force separated from the world, but no more the God of religion than the atoms of materialism are. In short, religion has a very different object in view in its interpretation of reality than has cosmology. Cosmology seeks an explanation of the world of events. Religion wants to interpret the character of the ground of the universe. Cosmology cares nothing whatsoever about that character. A demon that presupposed as the ground of the world thoroughly explains its existence, is just as satisfactory to cosmology as any other theory might be. The intellect then has an entirely different interest in the cosmological problem than has the religious consciousness, and we to-day had better differentiate carefully the two, remembering that we should not require of the intellect to take any other interest in the cosmological problem than to satisfy the demands of its own principles. Of course the old dogmatic cosmology did not make this differentiation, and we do have, historically speaking, its religious answer mixed up with its purely theoretical answer.

§ 35. *Hylozoism*.

Literature : Windelband; Section 4.

Hylozoism is the theory held especially during the first

period of the history of philosophy. It has, however, been revived as a theory in the nineteenth century. In the older form hylozoism precedes the sharp distinction that has been made between consciousness and physical events by modern philosophers. From our point of view, therefore, it represents a rather primitive ontology, and historically forms a prevalent theory of Greek philosophy.

The old hylozoist then did not distinguish, as we do, between the material and the spiritual processes. When he did make an ontological distinction it was a matter of shape and size of the hylozoistic body rather than any difference in the essence itself. To the hylozoist the world is entirely a material one, but material in a cruder way than the materialist of modern times would hold, the difference being that the former regards matter to be endowed with life. Hylozoism is, in short, the carrying over to the whole of nature what man finds going on in his own body. Nature is one great living material world. All things are alive. The processes of nature are the movements of a living mass.

The ontology of Greek philosophy we may regard as in general hylozoistic. This, of course, is especially true of the cosmological schools that were chiefly concerned not with ethics but with the explanation of nature, and also of the ethical schools as far as they adopted theories of nature.

The Ionian philosophers found this essence of things in water, the indefinite mixture, the air and fire. Later, Empedocles told man that there are four elements, earth, air, fire and water. Anaxagoras rejects this answer, and decides that the elements are infinite in number. In Leucippus and Democritus, among the Stoics and Epicureans, no matter what position was taken as to the qualitative difference of the various portions of substance, it none the less remained strictly hylozoistic. It was a matter to which belonged the power to move itself.

In our own century, especially in Germany, there was, as a reaction to Hegelianism, a strong tidal wave in the direction of materialism. But to the mind of to-day this theory is so in conflict with the facts as we have them that such a school could be but short lived. Consciousness, as we know it, is so different from the physiological changes in our nervous system as we know them, that the two must be regarded as of a decidedly different character. The result was that if materialism tell not the whole but only a half truth, the other half that must be added to matter is spirit. We must no longer regard matter as something dead and without spiritual character. On the contrary, all matter is of a two-fold nature, what we ordinarily call the lifeless matter and an additional nature, the spiritual. It may be only in the higher forms in the organic world that the spiritual element reveals itself to such an extent that we can get good evidence of its existence. It is none the less present in all nature. What is present in me, a body and spirit in the one person, this is true of all corporeality. It is two-fold, it is spiritual and material.

This theory, as held by thinkers of our century, has been called by them and others Monism. This is a very misleading name, as it is but one form out of the many possible varieties of monism. We should do better to retain the name hylozoism.

The chief representative of this recent hylozoism is the great German biologist Ernst Haeckel (1834—).

§ 36. *Materialism*

Literature. Paulsen, p. 53-86; Weber, p. 404-416; Windelband, section 10; Lange, *History of Materialism*.

It is somewhat difficult to make a sharp distinction between Hylozoism and Materialism. The materialist is obliged to account for the processes that take place in the world with-

out and also for his states of consciousness. In fact, the difference between the two ontologies is rather this, that the old hylozoism is a cruder materialism, nearly related to the animistic beliefs of primitive man. The strict materialist rejects a vitalistic, a living matter, and adopts an out-and-out mechanical explanation of the changes in the world. But in as much as life and consciousness to him are but modes of motion, and motion is a property in some sense of the universal matter, what have we here but a change of names and in reality the old hylozoism? The difference then between the two is that the knowledge of the modern has penetrated into the phenomena of life and the nervous system to a greater extent than did the ancient. He has been able to compare chemical events and physiological events in a way not possible for the latter philosopher. Hence we may say that materialism is used in two senses, in a broader and in a narrower sense. We should regard hylozoism and materialism in the narrower sense as two different forms of materialism in the broader sense. The hylozoism, or the cruder, the more primitive, and the less scientific form of materialism naturally precedes the other form, or materialism in the narrow sense. The connection between the two is continuous, hylozoism gradually approaching materialism and materialism sometimes approaching hylozoism.

Under such circumstances many writers can be judged to belong to either party. We shall, however, doubtless somewhat arbitrarily, speak of the ancients in general as hylozoists and their modern followers as materialists.

The chief materialists of modern philosophy are Hobbes and Gassendi in the 17th century, Diderot, La Mettrie, Holbach and Cabanis in the 18th century in France, and Feuerbach, Wagner, Vogt, Moleschott, Büchner and Czolbe in the 19th century in Germany.

We must now consider the doctrine of materialism itself

and the various forms it has taken. First, how shall we define it? In order to include all materialistic hypotheses we must define materialism as the doctrine that the universe in all its forms is spatial, or all reality is spatial. Matter is then that which exists in space, or is spatial. Everything is matter.

Now matter has not always been so defined. Most philosophers have regarded the concept matter as having less extension and more intension. In short, matter is not only spatial in the sense of existing in space, but is also *extended* in space. Thus DesCartes (1596-1650) defined it. Matter for DesCartes equaled *res extensa*. We have then first of all at least two quite distinct meanings of the word matter. The former, or broader meaning, regards matter as all spatial existence; the latter, or narrower meaning, regards matter as all extended existence. This difference between the two would, of course, be bridged over by those who regard all spatial existence as extended.

But there is still another difference, one more rightly called fundamental. There are two ways of regarding matter in either of these senses. We may abstract all motion and speak of matter and motion, distinguishing sharply between the two. On the other hand, we may refuse to make this distinction and regard motion as a property, or even as the very essence of matter, so that were the motion itself taken away matter itself would be no longer. This latter doctrine speaks of matter as force, and refuses to make the abstraction matter and motion. Those who do not make this abstraction give a mechanical explanation of the world, whereas the latter gives a dynamical one.

But still another doctrine must be mentioned that makes the confusion greater yet. DesCartes not only spoke of matter being *res extensa*, but identified matter and extension, or matter and space. In short, we can mean by matter

filled space or impenetrability and make this the one characteristic that differentiates matter from everything else, or we may identify space and matter. Thus the word matter may have quite a list of meanings. One characteristic, however, preserved thruout is spatiality, hence our definition of materialism as given above remains valid for all forms of this doctrine.

How do these forms arise, and how are they related to each other?

1st. We may ask ourselves, do we identify space and spatiality, in short, can we rightly distinguish between space and that which exists in space?

2nd. We may refuse to distinguish between matter and motion, or, on the other hand, we may make this distinction.

3rd. We may distinguish between the extended and non-extended spatial existence, retaining the name matter for the former or again denying the existence of the latter altogether.

Combining these three we get the following, the italicized words being possible meanings of the term matter:

	(1.) Space and its contents.	(2.) Matter and motion.		(3.) Extension and non-extension.
1. Spatiality	{ (2.) <i>Space</i> (3.) <i>Content of</i> <i>Space</i>	{ Motion (4.) <i>Matter</i>	(5.) <i>Force</i>	{ (6.) <i>Extended.</i> (7.) <i>Non-extended.</i>

Matter in the fourth and also we may say the second sense was held by DesCartes. Generally however matter has never been referred to space but only to its contents. If we go on to the fourth view alone, where we have distinguished the contents of space into matter and motion, and use the word matter in this sense as opposed to the motion of matter, we have a view held to a considerable extent by the Post-Eleatic philosophers and especially by the Cartesians. It was in opposition to the extreme views of Parmenides and Hera-

cleitus that a middle way was found. Instead of denying all motion or on the other hand denying all permanency, the Post-Eleatics admit both the motion and the permanent that does not change internally but only by altering its position in space. This doctrine was held among the Greeks by the Atomists, but we are probably right in regarding them still as hylozoists. Hence we must put the sharp distinction between matter and motion as late as the beginning of modern philosophy. This sharp distinction was made by DesCartes and controlled the conception of matter until the views of Newton and Leibniz gained a large following in the thinking world. It is from the time of these philosophers (tho Leibniz is classed with the Spiritualists) that the view of matter as force has its beginning. This view has been strongly supported during the last fifty years. The names of Leibniz and Faraday are especially connected with the view that the ultimate form of matter is a non-extended force centre, or matter in the seventh sense.

But materialism is not only a theory about matter but also the assertion of the sole existence of matter. If we take matter in its broadest sense, namely, spatiality; most men are and have always been materialists. In fact it was not till the days of DesCartes and Locke that the existence of something differing from matter in this sense was clearly made out and differentiated. After the days of Hume, who especially distinguished a non-spatial existence from the spatial, we have in England a return to materialism in such writers as David Hartley, Priestley and others. In France and in our own century, in the scientific reaction against Hegelianism in Germany we have a very strong materialistic movement. This movement however in time had to give way because it was one sided, until to-day materialism has to seek for followers among the non-thinking multitude or the specialist warped in mind by the narrow field his research covers.

This however is in no sense a denial of the truth of materialism. Materialism as a theory about what does not come within the field of the evidence thus far obtained, namely, a mere speculation, has never been disproved. What men have however come to see is that consciousness as we know it is not spatial, is not material. Whether a much fuller and exacter knowledge of consciousness would lead to the breaking down of this distinction, he alone dare answer dogmatically that believes himself able to say what matter and consciousness are from a priori information or from pure speculation. Those however who see in these distinctions the result of induction and wish to keep within the evidence at hand, are right in regarding materialism as unfounded, but will do well to add the limiting clause to their statements, "as far as our present evidence goes."

The speculative materialism, however, above referred to appears not to be materialism at all in our present use of the word. We, remember, are dealing with materialism as an answer to the question, What are the attributes of substance? Therefore, no matter what answer we give, this answer says nothing whatsoever about whether conscious and physical phenomena are manifestations of the same substance or not. It still remains a possible answer that they are the former.

§ 37. *Spiritualism.*

Literature. Weber, p. 391-398.

When in modern philosophy the sharp distinction had been made between "thought" and matter, or extension, there first arose the theory that the transcendent world is in part or wholly spiritual. Just as before the substance forming the world's foundation, or nature, was material; so now a new sort of substance totally distinct and independent is said also to exist or alone to exist.

It was DesCartes that first made this clear separation of

the two substances. As he had called the other the *res extensa*, or matter; he calls the latter the *res cogitans*, or spirit. These two are distinct in nature, have nothing in common and finally are mutually independent, the one not being produced by the other.

Tho this distinction be first clearly and definitely brought out by DesCartes, he none the less was not a spiritualist, but a dualist, and sometimes seems almost to verge on materialism pure and simple. The distinction was also made by Locke, but Locke sees no difficulty in regarding spirit as a form of matter. The two first great spiritualists are Berkeley and probably Leibniz. Other names that should be mentioned as realistic spiritualists are Arthur Schopenhauer (1788-1860), Hermann Lotze (1817-1881) and Eduard von Hartmann (1842-)

As the simplest and most common type of spiritualism we may take that of Berkeley.

As early as Democritus the distinction was made between the qualities matter really possessed and those qualities that our minds in perceiving assert of it. The matter of Democritus had no quality except hardness and extension. Color, etc., were not real characteristics of matter, but qualities with which matter is erroneously endowed by perception.

This doctrine of Democritus was revived and improved in the late Renaissance, and following the same period was steadfastly held to by the great philosophers DesCartes and John Locke. The only true characteristic of matter, or matter as known clearly and distinctly, was, according to DesCartes, *extension*. All else belonged to the obscure knowledge of sense that does not here give objectively valid information. Locke held that matter possessed more qualities than mere extension. It has figure, and size, and impenetrability; but DesCartes was right in excluding from it the so-called secondary qualities.

In short, as physics tells us to-day, the richness in quality that the material world seems to have is but subjective. The various colors we see are but perceptions in us, and in no way qualities of the objects without. What is really in the world without is the vibrations of bodies. So also is sound. Were there no ears and minds back of them there would be no sound. Sound is not a characteristic of the objective world. It is but a perception in us, a production of our minds reacting upon an external stimulus. What sound predicated of the world without really means, is only a certain sort of vibration of the air. In short, all that is without is but the motions of bodies, and these motions stimulating the organs of sense give rise to such perceptions as light, sound, temperature, etc. All these characteristics that our perception ascribes to the material world do not for science belong to it, but consist wholly of perceptions in us, and exist solely as states of consciousness in our minds. The real world without us is, therefore, not the world rich in qualities that we see, hear, feel, etc., but a world of moving bodies without such qualities.

Now Berkeley and the Berkeleyans refuse to stop where Locke did. If the secondary qualities be but perceptions in us, what are the primary qualities more than these? Are they any less perceptions in us? If we are to know the world, we must perceive it; it must be given to us in sense perception. Therefore, all we know of the world is what our senses tell us. But what is it that they tell us? Why, of course, whatever is their content. But their content is always some state of consciousness, because they are always perceptions, and perceptions are states of consciousness. Therefore, look where you will, all the information you have about the world is so much perception in you. If you have any other information, where did you get it and by what means produce it? Every datum of your knowledge of

the world, if you but examine it, will be found to be consciousness and naught else. Therefore, think as much as you will, the world as the object of your knowledge, of your interpretation, is a world given in perception, and of a material world not so given you have no knowledge whatsoever. You have not the slightest knowledge of its existence, and, therefore, to assume its existence were to set aside the very canons of science or to talk nonsense.

The objects I see about me are then the content of my perception. They are known by me to exist, but only as a content of perception. Therefore, the world we talk about, in which we live and move, this world is a world given in a perceiving mind, and any other world is pure invention. The *esse* of the world is *percipi*. Any thing called matter except our perceptions is an abstraction of the metaphysicians. There is no such thing. The so-called material world is made up of conscious states. The universe is composed alone of spirits and their consciousness. The material world has no existence except as part of that consciousness. Instead of consciousness being a mode of the motion of matter, matter and its motions are but consciousness. Materialism turns reality upside down, and is an absurdity. The universe is spiritual; and, therefore, so is that which we call matter as far as it has any being whatever.

§ 38. *Dualism.*

Dualism^{*} finds in both materialism and spiritualism one-sided doctrines. It claims that substance as revealed in its manifestations is twofold in essence. It is both spiritual and

^{*}The name dualism, however, could be applied to any theory that regards the transcendent world as twofold in nature. Such a theory was that of the late Greek philosophy, one borrowed from the East and religious in character. This dualism taught that the empirical world is the result of two transcendent principles, the one the Good, the other Matter, the Evil Principle.

material. The great names among the dualists are Descartes, Geulincx, Malebranche and John Locke.

To speak concerning the present status of these three theories: as was said regarding materialism, dualism also has not found any wide acceptance during the past fifty years. Spiritualism on the other hand has won a wide following in the thinking world, and is often preached to-day as tho it had spoken the last word. As a theory, however, its final success seems as little to be expected as materialism's: certainly this is so in its Berkeleian form.

The palpable fallacy of the Berkeleian hypothesis consists in the total confusion of the formal process with the material content. All that Berkeley's argument proves is what we have already stated concerning the formal process. It is therefore a mere truism. It in no sense interprets the material content of knowledge. Materialism therefore as an interpretation of the material content, or the object of knowledge, is not even touched by the Berkeleian hypothesis.

If then the distinction between consciousness and physical events that was given in the first few sections hold good, dualism seems to be the theory that in the end must triumph, at least if it is to be based upon the interpretation of empirical events. We are, it is true, using the term dualism here in a broader sense than realistic dualism. But whether the world process be the manifestation of a transcendent reality or realities, the manifestation is certainly as far as our present knowledge goes twofold, namely material and spiritual. Remember, we are not discussing how many substances are or may be manifesting themselves, but only the character of the manifestation itself. Dualism says on the one hand, we are unable to break down the distinction between those manifestations called consciousness and those called physical events, and on the other we find no mani-

festations that may not be classed under either of these two heads.

§ 39. *Infinetism.*

Before leaving the ontological theories, we have still another doctrine to state briefly. This is Infinitism. That doctrine was held pre-eminently by Spinoza.

The argument that lies at the basis of this theory is the relation of the extension and the intension of concepts as taught in formal logic. Logic tells us that as we pass from a lower genus to a higher, *e. g.*, from man to vertebrate, from vertebrate to animal, etc., the extension of these concepts increases. That is, the number of individuals that can be grouped under our concept becomes greater. If we then proceed to the highest genus, (for Spinoza Substance is really a summum genus), we embrace in our concept not only the greatest possible number of objects, but also, which is the same thing, all objects or an infinite number of objects. But as we increase the number of objects to which our concept refers, we get as an object of our higher concepts one that is much richer in qualities than the objects referred to by the lower concepts. Thus man does not begin to have the number of qualities that all animals put together have, nor have animals the number of qualities all physical existence has. Thus when we come to the highest concept, the universe, we have as object to which we apply that term, one that is infinitely rich in qualities. In short, as Spinoza puts it, the more reality a thing has the greater the number of its attributes. Substance that has all reality or infinite being in it has, therefore, infinite attributes.

Spinoza grants that the only two attributes the finite mind of man knows are consciousness and extension; but at the same time he affirms that reality is infinitely richer in attributes than the finite mind is able to perceive. Could we know reality completely, then the wealth of its manifesta-

tions would be found to be such that we should have to ascribe to it and should see it to have, an infinite number of attributes.

Thus as far as dualism asserts reality as known to us to have but two attributes, there is no conflict between Spinoza and the holders of that doctrine. The conflict first arises when the dualist claims that, as known clearly and distinctly, that is really and completely, reality has but these two attributes.

§ 40. *Singularism.*

Literature : Paulsen, p. 232-243; Weber, p. 325-334.

We consider next the answers to the Cosmological Problems, or to the question whether substance be single or a plurality, and if a plurality what relation obtains among the substances. We have already said that this problem has received two chief solutions, which are called Singularism and Pluralism. We shall discuss Singularism first.

Singularism, or Pantheism, tends and sometimes proceeds to break down all distinctions that would give any part of the universe individuality. All parts are but sides of one great all-inclusive whole. The individual object, person, or event, is but the momentary state of the great all in all of the universe; or we may go even as far as to deny the existence of the individual altogether, regarding it as a mere illusion. There is but one, the whole; all else is but sides, or modifications of that whole; or if not this, then mere appearance or illusion.

In one sense, all that regard the universe as a harmonious whole, as being a unity in the meaning of obedience to some universal law or order, all these are singularists. Thus the distinction between the singularist that does not deny the existence of the individual in some sense, and the pluralist is not a sharp one, but the one theory merges gradually into the other. The only sharply opposing theories would be

those that altogether deny the existence of the individual and those that deny all unity to the universe, or rather assert the existence of many absolutely non-related or independent worlds. This latter theory, however, seems too audacious to be held by anyone, and as a possible theory will be treated under the head of the Principles of Reality (of Contradiction).

We may then say, that with the exception of the other extreme theory, the difference between singularism and pluralism is rather relative, different philosophers laying greater or less stress on the individuality of things.

The extreme form of singularism, as said, denies the existence of the individual altogether. What we call the manifoldness of the world is, at least as far as the transcendent world is concerned, illusion. The transcendent world is for this singularist often the only real world, or at least this is the tendency of such singularism. It is perhaps best represented in Indian philosophy. Western thought has, however, had its extreme singularists, namely, the Eleatics. Being is for them absolutely one. The world of change or of individuality is illusion. But strictly speaking, Heracleitus should be counted among these same singularists. A world in constant flux is a world just as little admitting the possibility of individuals as the world of the Eleatics. Where there is no permanency there is nothing distinct from other things, there is nothing but the whole. Where all is change there is but the change.

This extreme form of singularism, however, represents difficulties that belong to early and primitive thought. Modern philosophy has practically discarded the difficulties the Greeks found, as superficial. We have learned to distinguish between the fact and our description of the fact. It may be that no modern philosopher has succeeded in giving a satisfactory or a consistent account of what individuality is.

Nevertheless, the fact that our description may inadequately describe, is held to. Philosophy, then, has not denied the individual. It has attempted to explain the same.

As already said, the distinction between singularism and pluralism is but relative, the singularist laying extra emphasis upon the unity of the universe and far less upon the individuality of the members of the universe: the pluralist, as we shall see, reverses this order.

Singularism has had, nevertheless, the problem to solve, What is the individual and his relation to the whole? This question we may say has been answered in two ways. The older way is that of the Neo-Platonists, where the individual is an emanation from the fundamental source of the universe.

This theory has been described by comparing it with the sun sending its light out in all directions into space. As the light recedes farther and farther from its source, it approaches nearer and nearer to becoming darkness, till finally it becomes infinitesimal or altogether darkness. As these rays of light are emanations from the source of the light, the sun, so is the individual an emanation from the All in All, the Central Source of all things, or God.

The later form of singularism explains the individual as a modification of the Ground of the Universe, or God, or as a stage in the development of the absolute.

The great realistic singularistic systems in modern philosophy are those of Spinoza and Schopenhauer. For Spinoza the individual things making up the transcendent world are *modi sive affectiones dei sive entis absolute infiniti sive substantiæ*. They are related to the world ground, or God, as following necessarily out of his nature, or essence. Just as it follows from the nature of a triangle that the sum of its angles is equal to two right angles, so out of the nature of God follow all the modifications of God that we more or less mistakenly look upon as independent individual things. The difficult

question is how we are to regard the order of things relatively to the time of their appearance. That these so-called individuals come and go Spinoza does not deny. Yet their relation to the ens absolute infinitum, or God seems not to be stages of His evolution. The only solution of this question we get from Spinoza is that the world process is related not temporally to God but follows from His nature as an eternal verity irrespective of time. Spinoza seems then not to be an Evolutionist, and in this sense we can hardly regard the individual as a stage in the development of the absolute.

We may then say the doctrine of the Evolution of the absolute is a third singularistic theory. Here the individual is as said a stage in that development. The singularism of the nineteenth century has been of this form.

§ 41. *Pluralism.*

Pluralism emphasizes the individual and the part played by the individual in the constitution of the transcendent world. Tho not denying the unity of the universe, pluralists explain it as a unity made up of individuals.

We can naturally ask two questions concerning these individuals: first, their ontology (which subject we have already considered); secondly, their cosmology proper, or the relation obtaining among them that makes up the order, or constitution of the world. The individuals may be material; we then speak of them as atoms. They may be spiritual; we then speak of them as spirits, souls, or sometimes monads. Again, if we go back to hylozoism, they may be hylozoistic atoms, called by Giordano Bruno, a hylozoist, also monads. As dualists we may speak of both atoms and spirits existing. Another possible variation arises by regarding matter as divisible ad infinitum. In this case, atomism is rejected, and matter is looked upon as a whole, much as the singular-

ist views substance in general. The individual physical objects are then but modifications of the substance matter and not true independent entities. Thus DesCartes.

But pluralism has a still further question to answer: Is the sum total of existence these atoms or spirits alone, or is there in addition to the system that these make up, a world ground? In the former case, the unity of the universe is only in the order of the atoms; in the latter case we have in addition some highest atom, or spirit, or world ground that orders and rules the world of atoms or spirits. The former system is sometimes spoken of as Atheism, just as singularism is spoken of as Pantheism. The latter system is referred to as Theism. Much objection, however, can be raised against this terminology, which is religious in its meaning rather than metaphysical. Much singularism claims to be theistic, much theism in the sense of the latter system mentioned above, may be, religiously speaking, atheistic.

We should do better to call the one system singularism, remembering that it is generally called pantheism. The other two systems we can refer to as pluralism, remembering the difference between the two and that the one is often referred to as atheism, the other as theism, and that these distinctions do not necessarily correspond to those made by religion.

Pluralism arose to explain the processes, or changes of nature. The Eleatics had denied all change, Heracleitus had said all was change. Neither hypothesis was satisfactory, for they seemed to leave something unexplained that needed explanation. The Eleatics got rid of this need by denying anything to be explained; Heracleitus by saying that the thing to be explained was itself ultimate and, therefore, its own explanation.

Empedocles, Anaxagoras, Leucippus and Democritus take the happy mean. Agreeing with the Eleatics that the "Being" is permanent, they none the less must acknowledge

with Heracleitus the reality of the change. They therefore do not, as Parmenides and Heracleitus, escape the need of an explanation. What was their explanation? If the existing, or Being, were permanent, then change could not be a modification of "Being," it must be some other sort of a modification. But what other is possible? There is but one answer. "Being" must be made up of individual "Beings," and change must be an alteration of the relation obtaining among these individual "Beings," but not an alteration of the "Beings" themselves.

Thus it is by the invention and adoption of the pluralistic hypothesis that the successors of Heracleitus and the Eleatics are enabled to give an explanation of change which they could neither deny nor accept as ultimate.

These primitive substances are conceived by Empedocles as qualitatively distinguished from each other (*i. e.*, as earth, air, fire and water), "limited as to number, and divisible to infinity; by Leucippus as homogenous in quality, unlimited in number, and indivisible; by Anaxagoras as different in quality, unlimited in number, and divisible to infinity. In order to explain motion, on which all combination and division of substances is based, Empedocles annexes moving forces" (*i. e.*, love and hate) "to the elements in a mythical form; Leucippus and Democritus remove the atoms into empty space; lastly Anaxagoras takes refuge in the world forming Spirit." (Zeller.)

We may then say Empedocles and Democritus represent the atheistic type of pluralism, and Anaxagoras tends in the direction of the theistic type of pluralism.

In the metaphysics of Plato and Aristotle we have a sort of dualism. In Plato it is the distinction between matter and the Idea. In Aristotle the dualism is expressed by the distinction between Form and Matter. Both, however, are pluralists. In Plato we have the *τόπος νοητικός* peopled with an

endless number of Ideas. In the doctrine of Aristotle we are told that matter taking on the forms becomes a world of individual things. In Plato the world is subordinate to or ruled by one supreme Idea, the good. In Aristotle, there is one supreme Form, pure activity that is never material. This is God, the prime mover of the universe.

We have so far (*i. e.*, up to the death of Aristotle) in the history of philosophy, representatives of the atheistic and theistic types of pluralism. We may take Democritus and later Lucretius as the typical atheists, Aristotle as the typical theist.

§ 42. *Theistic Pluralism. Theism vs. Pantheism.*

Literature: Cf. Weber, on Aristotle, St. Augustine, Berkeley and Leibniz. Windelband, Sections 20, 27 and 29.

As we have seen, the great theistic system of Greek philosophy is that of Aristotle. This, however, is not the only chief form the ancient world gave to that doctrine. When Christianity in its contact with Greek thought found itself obliged not only to formulate the doctrines of the Church, but also to construct apologetically a philosophy founded upon the same and meeting the intellectual needs of the times; there resulted finally in the teachings of St. Augustine a great theistic system. His cosmology is different from that of Aristotle, and contains great original contributions to human thinking. These two theisms, that of Aristotle and that of St. Augustine, represent and almost constitute the two types of theism held ever since in Europe, and especially by the Church.

In the Aristotelian Scholasticism, and especially in the system of St. Thomas Aquinas, we have the former type. In the Augustinianism of the Jansenists and the Protestant Reformers we have the theism of the latter type.

Both systems were ever in danger of passing over into

Pantheism; and Spinoza's doctrine of substance is doubtless the logical outcome of that of Aristotle.

The history of Pantheism, on the other hand, belongs especially to modern philosophy. It is the result of the philosophy of nature of the Renaissance, and again, as just said, of the working out of the Aristotelian doctrine of substance to its full conclusion in Spinoza. In the Post-Kantian writers we have once more a strong pantheistic tendency.

To pass from this brief statement about the history of the two doctrines, what is the fundamental difference in their point of view? It is none other than the controversy between the intellectual and the ethico-religious interpretation of the universe, between the will and the reason.

In the intellectual interpretation of the universe the chief motive is to find a ground of the universe that explains its origin, its nature and its processes. The intellect in no way cares what this ground is, as long as it serves the purpose of explanation, nor how rudely this explanation may dash to pieces the hopes and longings expressed in the moral and religious life of the time. In what is called the individual it sees a stumbling block that it must try to explain away, rather than a principle that it must make the basis of its explanation. What is sought is an explanation of the universe as a unity. The world explained as a unity is the ideal of the reason; it is the very principle of its interpretation, the individual and change are the elements that must be understood in harmony with this unity and explained out of it. In short, we see here a strong tendency to make the Principle of Identity the chief, and we might almost say the only, basis of the interpretation of reality.

The moral and religious consciousness, on the other hand, is strongly (with the exception of mysticism) individualistic. Man interpreted as a moral being must be regarded as an individual, free and responsible for his conduct. Further,

the Ground of the World must possess Personality. The moral and religious nature claims that man's relation to this Ground (responsibility, dependence and redemption) can exist only in case the latter be a spiritual personality.

For pantheism, as we have seen, the individual is but a mode, or modification of the absolute. It has no independent existence, its nature and doings "follow necessarily" out of the essence of the ground of all things. Human conduct would then be, so the theist urges against the pantheist, as non-moral as the waves beating on the seashore or any other of nature's processes.

How is the deadlock that these two theories are bound to arrive at to be removed? The way that the seventeenth section suggests would seem to be the only solution. Namely, we have in this controversy two fundamental interests. Each of these interests has a right to interpret reality from its own standpoint and in accord with its own principles. In fact, the two are entirely different; their problems are not the same, and when carefully distinguished should never come into conflict because their fields do not overlap. It is true, this leads to at least a twofold interpretation of the universe. But as we have seen, it appears to be the highest and best decision of our century that for the finite mind this manifold interpretation cannot be gotten beyond. In short, the breach between the intellect and the ethico-religious consciousness is for the finite mind ultimate.

We may then conclude that the explanation of the world as a unity, of its processes as following necessarily out of the absolute, and of the individual as but a modification of that world ground, appears to be the ideal of the interpretation of reality on the part of the intellect; in short, reality explained in accord with the principle of sufficient reason. The moral consciousness on the other hand appears to demand an in-

dividual morally responsible and a world ground whose character it interprets by such words as good, perfect, and to which it ascribes the intellectualistic paradox personality together with infinity. This paradox, however, is but due to the terminology, and exists only when the words are given a metaphysical and not an emotional meaning. The question, however, belongs to the philosophy of religion to discuss.

We see here that the old dogmatism leads us to a deadlock, the removal of which necessitates the discussion of problems other than metaphysics.

§ 43. *Atheistic Pluralism. Atheism vs. Theism*

Literature. Paulsen, p. 158-180.

The controversy between atheistic pluralism and pantheism is one with that between pluralism and singularism. We have then already discussed it. Atheism accordingly is, strictly speaking, in conflict as a form of pluralism only with the contrary theory, theism. Atheism finds in theism an inconsistent pantheism. It argues, we have no evidence of the existence of such a world-transcending ground; and it fails to see in theism more than a theory raised not to explain the world rationally but thru a teleology that presupposes the very thing that the dogmatist desires to explain, and in general to interpret the world in a way inspired not by man's intellect but by his moral and religious desires. It presupposes the monstrous doctrine that the world was made to suit the desires and wishes of man, or that man is the end of creation. Pantheism it can understand and treat seriously, theism it regards as a remnant of mythology unworthy of scientific recognition.

Atheism, like pantheism, is doubtless right in feeling that the theist has had other motives than purely intellectual ones. If, however, atheism be intellectualistic, or deny the right of any other than an interpretation of reality in terms

of the intellect, the controversy is no longer between atheism and theism, but between intellectualism and voluntarism, or again, between the former and the doctrine of a manifold interpretation of the universe.

Here we are concerned with atheism only as a metaphysical and cosmological theory, in short, where it is not necessarily in contradiction with a religious, as opposed to a metaphysical, theism.

Theism has demanded an explanation of the order, the perfection and the presence of final causes it claims to discover present thruout the world. It sees in the results of human intelligence and volition events of the same character as (tho less perfect than) those found in the great laws and processes of the world. Having in what man produces an example of what mind has wrought, it argues by analogy to a mind infinitely powerful, wise and perfect, as the only possible explanation of the world. It sees in any other theory the assertion that the marvelous adaptations and organisms we find in nature are the result of blind chance, an absurdity equal to saying, stone-quarries of themselves change into cathedrals and iron mines into locomotives and steamships.

The atheist, on the other hand, refuses to find in the processes of nature anything analagous to the purposive activities of man.

In the first place, man changes one form of force or matter into others. He does not create. In the second place, the so-called ends of nature that serve as the material for the theist's argument are over-weighed by an indefinite mass of events in contradiction to any such interpretation.

Rain and calamity come to the just and the unjust. Misery and fortune are the lot of all alike. Instead of the higher animal organisms being created after a plan, they are but the outcome of a ruthless struggle for existence marked by the

suffering and extinction of millions upon millions of the unfit. Further, the survival of the fittest does not mean necessarily the morally or intellectually highest. It often means forms of life that from this standpoint are a degeneration. Then too, evolution is but one-half the story. Dissolution is the other half. Nature's processes go up and down, and there is no evidence that they do not go down just as far as they ever come up. The earth, its races, its nations, will all grow old and pass away into the chaos whence they arose, and what has been gained by their having existed? Can the theist point to any evidence justifying us in saying a purpose has thereby been fulfilled? He cannot. There is then in nature nothing whose *scientific* interpretation demands the supposition of an infinite intelligence.

All we have are the great processes of nature. All that we need presuppose to interpret these processes are the substances with their laws of movement or of change. These all are ultimate, are therefore to be assumed just as the theist assumes his God. They are in fact by the law of parsimony a much preferable assumption as they do not presuppose as much. We simply assert what is has always been, what we now see to be nature and its processes has always existed. These are ultimate and need no explanation other than a description of what actually is therein present. When we have done this metaphysics has fulfilled its mission.

The true explanation of the world is then, according to atheistic pluralism, that the universe is composed of many substances; these substances either by their own activities, or motion and interactions, make up the processes of the world. Atheism has generally taken on the form of materialistic atomism, but is not necessarily atomistic nor materialistic. It could just as well be spiritualistic. In the former and more usual type, it explains all as the movements of atoms, from the great processes of nature to the formation

of the highest organisms and the greatest productions of the human mind. All is the result of a purposeless collision and rebounding of an infinite number of atoms.

The great dogmatic atheistic pluralistic cosmologies are to be found in the systems of Democritus, Epicurus, Lucretius, Hobbes and their successors in the 18th and 19th centuries.

§ 44. *Materialistic Pluralism. The Atomic Theory.*

Literature. Paulsen, p. 145-158. Weber, p. 55-58. Lasswitz, *Geschichte der Atomistik*. Lange, *History of Materialism*.

The individual substances, if we accept the answer of monism or dualism, must be spiritual, material or both. In the first case we refer to them as spirits, sometimes as monads; in the second case as atoms.

Atoms may then be material, or, if both material and spiritual, hylozoistic.

Atomism is one of the pluralistic theories that arose to remove the Eleatic and Heracleitian deadlock. It did this as the other pluralistic theories, by accepting the unchangeableness of substance and by explaining change as an alteration in the relative position of substances which are material in the broader sense. Ancient atomism is set forth preëminently in the teaching of Leucippus and Democritus and in the *De Rerum Natura* of Lucretius.

In the Renaissance we have the revival of this ancient theory, to some extent, in the monads of Giordano Bruno, but especially in the Epicureanism of Gassendi. DesCartes refuses to accept the atomistic theory, and regards matter as divisible ad infinitum. The great influence Cartesianism gained in Europe tended to set aside any further development of atomism till Leibniz and Newton won a hearing.

Leibniz substitutes for the old atom an unextended force. This force however he regarded as spiritual, hence we shall place him among the spiritualists. We have, none the less, in

his theory the beginning of a new conception of the atom, combining somewhat the old hylozoism and the mechanical views of modern natural philosophy. This new conception regards the atom not as an inert mass but as a non-extended force centre. In short, as the ancient materialist endowed matter with life, so now the atom is endowed with motion, matter and its motion being combined in the concept force. This theory was set forth as stated above in our own century by Faraday.

In concluding this section, attention should be drawn to the distinction between the atom of metaphysics and that of empirical natural science. The latter is but a working hypothesis, and does not necessarily assume that theoretically speaking any such thing as atoms, namely, absolutely indivisible particles of matter exist. What atoms mean, is a law of nature as expressed in certain uniformities of chemical and physical phenomena, and in the fact that we have never been able to analyze these so-called atoms into any further elements.

If we keep to empirical science, we dare not assert that the dissolution is theoretically impossible, only at present practically impossible. Atomism as a metaphysical theory, however, asserts the absolute indivisibility of the atom, and has therefore an entirely different theory to be held responsible for.

To understand this metaphysical theory we must remember its origin and the problem that atomism has ever striven as its chief aim to solve; that is, change.

§ 45. *Spiritualistic Pluralism. Monadology.*

Literature: Weber, p. 345-362.

The theory referred to here is that of the great German philosopher Leibniz. This resulted from a dissatisfaction with the Cartesian conception of matter and a substitution for it

of that of force, and on the other hand from carrying over the infinitesimal calculus of his mathematical studies to the explanation of nature.

For Leibniz the world consists of an infinite number of spiritual entities called monads. Each of these monads was endowed at the creation with an infinite potentiality of perceptions and at any given moment of its existence has present in it an infinite number of actual perceptions. Our souls are examples of such. Tho it be true that in what psychology to-day calls our stream of consciousness we can speak of but a limited number of perceptions or sensations being present at any given moment of time, we have nevertheless according to Leibniz to assert that besides these there remain an infinite number of perceptions of lower degrees of intensity. Exactly how Leibniz conceived these infinite perceptions, in spite of oft-repeated attempts to explain them found in his various literary remains, it is still difficult to state. The reason these infinite perceptions do not become part of our "stream of consciousness" is due to the fact of their weakness and to our lack of attention. Thus in modern psychology we speak of the "Blickpunkt" and know how much fainter and obscurer objects outside of that "Blickpunkt" appear. Then too, in attention we get a similar result. That upon which our attention is concentrated is clearly present to consciousness, but outside of this much is still obscurely present to the same. Then again, much that is referred to to-day as subliminal was regarded by Leibniz as being perception of such a weak intensity that it did not become part of what we call our stream of consciousness, but none the less was present as perception. Still again in the phenomena that the modern doctrine of the threshold of consciousness deals with, was found by Leibniz evidence that we have perceptions of such weak intensity that they do not become known to our higher consciousness.

In this way he argues that the perceptions of any one spirit are not only indefinite but altogether infinite in number.

Each of these monads with its infinite perceptions reflects with all possible varying degrees of clearness and of obscurity the world process. Each is a mirror of the universe, but each reflects the world with different degrees of clearness. Thus from the monad that reflects the world most obscurely to that which reflects it most clearly we have a continuous ascending infinite row of monads. Man's rational soul, or monad stands of course much higher in this series than the monads making up say, stones, etc. But beyond man there is still a continuous series of monads varying in the clearness and distinctness of their perceptions till we come to the highest monad, God, who perceives the universe absolutely, that is, as it really is.

The universe then for Leibniz is made up of this infinite series of monads and with each its infinite perceptions, and of nothing more. There remains more to be said about this theory of Leibniz in connection with Immanent Occasionalism.

Berkeley also set forth a spiritualistic pluralism, the world being composed of the Infinite Spirit, God, and the finite spirits, with their perceptions. The material world exists solely in the consciousness of God and the finite spirits.

§ 46. *Dualistic Pluralism*

Dualistic Pluralism, after what has thus far been said, need be only mentioned. It may appear in various forms. Thus it might combine a spiritualistic pluralism with the atomic theory. Again it might reject the atomic theory and all material pluralism and say the world is made up of matter and its motion and of spirits. This seems to have been DesCartes' position.

Among the dualistic pluralists should be mentioned the names of DesCartes, the Cartesians and John Locke.

§ 47. *Criticism and Problematicism*

Literature. Cf. Weber, on Hume, p. 418-430, on Kant, p. 437-462; Windelband, section 38.

We have now considered briefly the different answers dogmatism has given to the question, What is the nature of the transcendent world? Before asking the further question, What is according to realism the Given and the relation between the transcendent world and the Given? we must first consider the attack made upon dogmatism by those who reject the possibility of any knowledge on our part as to what the transcendent world is. Then too, from all three parties, Dogmatism, Criticism and Problematicism, we shall expect some sort of answer to those two questions. Hence the attack upon dogmatism may be best considered at this point of our discussion.

Dogmatism has said, we know not only that there is a transcendent world, but also what that world is. Criticism admits the knowledge of the existence of the transcendent, but denies the possibility of any such knowledge as to what it is. Problematicism finds even in its existence only a possibility.

The movement against dogmatism in modern philosophy may be said to have been two-fold. First, empiricism in England, especially as represented in the writers Locke, Berkeley and Hume, passes in its development from dogmatism to criticism and perhaps problematicism, and to some extent even to skepticism.

Secondly, in Germany Kant throws off the dogmatism of his early philosophical training, and "aroused from his dogmatic slumber by David Hume," sets forth in his Critique of Pure Reason his critical system that is once for all to show the impossibility of the dogmatist's ambition. Kant then in part represents the results of the consistent working out of the logical conclusion of empiricism, but only in part. He

himself is, by bringing up and by personal conviction, a rationalist, and remained such. His system strives to make room for both these doctrines, and might be regarded as a combination of the two.

a. Criticism in England

As has already been said, empiricism logically carried out, not only tends to reject dogmatism, but must pass over into idealism, setting aside realism altogether. Even this may not be its ultimate goal. If strictly argued to the bitter end, probably the only end it can hope to reach, is out-and-out skepticism. However this may be, the course English empiricism took from Locke to Hume was the passage from dogmatism to criticism and problematism. We must now consider in general the details of this movement in which dogmatism is rejected.

The foundation of empiricism is the view that all our knowledge comes from experience. This doctrine is first applied to the conception of substance by Locke and after him by Berkeley and Hume, with the result that the problem of substance is revolutionized.

As we have seen, substance is manifested to us thru its modifications, but it itself, *qua* substance, is not manifested. It is then an "I know not what" lying behind its manifestations. Thus Locke. If we ask what hydrogen or anything is, the answer we always seem to get, is "something that manifests itself so and so;" but what this something is, *qua* something, that is, apart from its manifestations, we are utterly unable to say. In short, as should now be clear to us, the dogmatist has never told us what that "something" is. He has had much to say about it being material or spiritual. But telling us this was only giving its attributes. Thus substance has never *qua* substance been interpreted by the dogmatist. After all, then, we charge

him with not having told us this much about the transcendent, and further, with not being able to tell us it.

But again, how about these attributes and modifications? What are they? Are they after all transcendent existences, or are they merely constituents of the Given? If we show that they are the latter, then the only thing that remains transcendent is substance, and the dogmatist has failed to tell what this is—in short, has told only that the transcendent exists, but not what it is.

Is then our interpretation of the attributes and modifications but an interpretation of the Given? The empiricists are soon forced to the conclusion that it is. Thus if the manifestations be given to us as objects of knowledge only in experience, surely we are forced to admit that we are in asserting their existence but interpreting the data of experience. Empiricism then as such contains in it, perhaps, sometimes unconsciously, the admission that these manifestations are solely elements of the Given. That this is so was quite clearly seen by Berkeley, and still more so by David Hume.

The foundation of this doctrine is that all our ideas must come from perception, either of the world without or of our consciousness within. Locke first makes an attack upon the supposition that knowledge is born with us, that is, not acquired. The new-born babe enters the world entirely unacquainted with the same, and all that it ever knows about this world is learned. If learned, then where learned? Surely thru experience, but thru experience means from sense and self-perception. If there be an idea not so gotten, Hume challenges us to produce it.

Now if we are to know anything we must form an idea of it. To know something and to be unable to have an idea of that which we claim to know, would be a contradiction in terms. But as we have found, to have an idea must ultimately mean

we have had a perception of all the elements that idea contains. But this in turn means that our ideas are solely of objects or elements of that given in perception. Therefore, to know means always to know what perception has given as an object, and never what is not given in perception. Clearly then, the manifestations of substance, if they be objects of our knowledge, must be referred to the Given as the source of our knowledge of them.

But not only this—how about substance? What is substance? Have we an idea of it? If so, whence the idea? Surely, the only place we could get it from is perception. But by hypothesis substance is something not given in perception. Therefore, if it be such, it is something wholly beyond our ken—we have not even so much as an idea of it. It is therefore a dogma, and away with it as so much mythology and pseudo-knowledge. The transcendent world, which none of these writers deny to exist, is therefore, according to empiricism as finally thought out in Hume, one that is wholly unknown.

b. *The Kantian Criticism*

But what is the decision of the Kantian Criticism? Kant in many ways accepts the results of English empiricism, and feels himself not far removed on many points from David Hume.

There is, however, a great difference; as we saw, Kant always remained a rationalist. According to Kant, then, all our knowledge is not derived from experience. Our knowledge, in fact, is of two sorts, that gotten entirely from experience, and that whose source is, as he calls it, transcendental, is namely, the reason. Thus our knowledge of the world is sometimes experiential, and sometimes rationalistic.

For Kant any given piece of knowledge upon examination is found to be composed of two elements. One is called the material, or stuff of knowledge, the other the form; and we

know by the reason working over the raw material gotten in sense and giving it its form. It is thus that the thousands of impressions that are given to us in a chaotic form are ordered into a world of time and space governed by laws of succession and coëxistence. Were our knowledge purely from sense the world for us were a chaos. All that order means in nature is due to the transcendental activity of the reason combining and ordering the manifold of sense.

Kant then gives the rationalist the right when he says some of our knowledge is not from sense but from the reason. This part that comes from the reason is the form of nature, the order of the same. But where then did the dogmatic rationalist go astray? Kant answers, in taking this form, or order, which is but a form, and applying it to a world not given in sense, the dogmatist was applying a form to nothing. He lacked all stuff to which he could apply the form. His transcendent world then was but a land of shades. Form was there, but no body. To use a Kantian figure, the dogmatist was attempting to fly off into space where there was no resisting medium such as the air. He bent his wings, but without the resisting medium could make no progress whatever.

To use still another figure: Knowledge is like the making of a statue. The stuff, or clay is furnished by sense, the form is given to that clay by the reason. The dogmatist however takes the form given by reason and attempts to make of it a statue without having any clay or other stuff, because the only source of such material is the senses.

Hence dogmatism tells us about the transcendent world a story purely its own creature and in no way a true interpretation of that world. We cannot interpret that world because we cannot get it given to us, and without the material the reason can make no progress.

Kant however does not deny the existence of the trans-

cent world. On the contrary he holds most tenaciously to the belief in its existence. He decides none the less that it is a world unknown to us, that our knowledge is limited to the world of experience, that is, to the Given.

It is somewhat difficult at once to decide whether Kant and Hume are critics or problematists, in our use of these words. Some of their expressions certainly seem to regard the transcendent world, even its existence, as entirely problematic. On the whole, however, there is ample evidence to show that both held to the existence of that world. Their problematic statements are then inconsistencies in their writings, and ones that show the way their own doctrines had in time to drift, namely, more and more toward idealism.

§ 48. *The Nature of the Given*

Those who, as the Realists, assert the existence of a transcendent world make necessarily a distinction between two worlds, to the other of which we have applied the name, the Given. Now, inasmuch as these two worlds are different, we can describe them both at least to the extent of stating the distinction. So much at least we may justly require of all Realists.

The realistic answer to the question, What is the Given? appears always to run back to the distinction between consciousness and the outside world. The Given is our states of consciousness, the world transcending those states is the transcendent world. Of course, the nearer determination of the Given varies much in different modern philosophic systems.

Strictly speaking, the problem in debate between realism and idealism belongs to the last two hundred or two hundred and fifty years. Nevertheless, the realistic position, if not held in opposition to idealism, is as old as the Greeks, and possibly should be dated back to Thales. As soon as

man makes a distinction between the world as it "appears," and the "real" world behind the appearance, we have this separation of the Given World and a Transcendent World, which we may or may not be able to know.

When Thales surprises his fellow citizens by telling them that all things are forms of water, there is in his statement already the distinction between a world as it appears to sense and as it is known to reason. Among the Pre-Socratics this is most clearly brought out in the doctrine of the Eleatics and Heracleitus. Here we have a sharp distinction made between the world as it appears and the real world discoverable only by the reason. The senses deceive us; there is no motion or manifold as the Eleatics tell us, or again, there is no permanent, as Heracleitus informs us. The world we live and move in is an illusion of our senses.

This doctrine comes out in the skepticism of the Sophists. The very doctrine of the subjectivism or extreme individualism of our knowledge marks off the world of knowledge at once from the objective, or transcendent world. The Sophist seems never to have denied that such an objective world exists, only its knowability. The world we know and alone can know, is each one's own consciousness. Therefore, our judgments have validity not for any objective world, about that we can say nothing, but only for the world of the individual.

Plato so far agrees with the Sophists as to distinguish the world of the *αἰσθησις* from the objective or "real" world, the *τὸ ὄν*. But he goes back to the Pre-Socratics by affirming a knowledge of the objective world, his world of Ideas. In Aristotle we have an approach toward idealism in as far as Aristotle breaks down any such sharp distinction between the world of sense and the objective world as Parmenides and Plato had made.

The problem is one, however, that can be most clearly dis-

cussed in connection with modern systems. Here we can begin with DesCartes.

In his system DesCartes clearly raises the difficulty of our knowing any world beyond our own states of consciousness, or transcendent to them. Clearly the Given is for him the individual's states of consciousness, all else belongs to the transcendent world. If we look about us how do we know that the world is then really perceived by us? May it not be that life is one prolonged dream; and may it not even be that some demon has created us and so made us that we experience what we call the world without, when in reality there is no such world as the seen world except in our minds? One thing, however, DesCartes tells us is true. No matter whether life be a dream or a demon our creator, my own states of consciousness exist; and this world, or the Given, is fact. Tho all else be a mere illusion one thing is beyond dispute, the existence of my own consciousness, or, if you will, the existence of my illusions. The facts then, or the Given, are consciousness.

This doctrine is especially clear in the Occasionalists Geulincx and Malebranche. The world of our consciousness is cut off sharply from the transcendent world. It is only thru God we know that world beyond. The world we directly experience as a world of facts is our own conscious states.

Leibniz makes this still clearer. As the transcendent world consists of the pre-established harmony of an infinite number of monads; so the world of experience, the Given, or the facts of experience, is but the reflection, more or less obscure, of the transcendent world. This faint reflection of that world was implanted in us at our creation, and differs in every monad in as far as each monad is in perfection nearer to or farther removed from the divine monad that reflects the world as it is. In DesCartes, and to a much greater ex-

tent in Leibniz, the distinction between the Given and the transcendent world is made clearer by the quite different character of the transcendent world from that of the Given. The world you and I know in our daily life is a world of objects that have colors, are hard or soft, cold or hot. DesCartes' transcendent world is, however, quite different. Could we perceive that world we should have great difficulty in "finding our way about." It is a world where there is no color, a world of matter whose sole quality is, we may paradoxically say, quantity. It has extension and that is all. This matter fills space entirely, leaving no vacuum, and moves generally in vortices. How different is the given world, full of all sorts of qualities inhering in its objects, from that transcendent world of extension.

But a far greater difference meets us in the system of Leibniz. The transcendent world, as we have seen, is a world of non-extended monads, or spirits, absolutely without any action the one upon the other. Each is different from the other, forming a continuous gradual approach to the perfection of the highest monad, or God.

In England, a much more definite answer is being, or is about to be given, to the question, What is the Given? John Locke took up this question, as none before him had done. He asks plainly, What are the data of our knowledge, or as we have called them, the Given? These data of our knowledge he calls "simple ideas." They correspond nearly to the term "sensation," as used by present-day psychology. The simple ideas are variously combined by us to form complex ideas. Such complex ideas form our perceptions of the familiar objects of daily experience, such as houses, men, fields, etc., as well as those abstractions of science, substance, space, time, etc. Locke, however, represents but a transitional stage, and is hence very indefinite and often contradictory in his account of the Given and its

distinction from the transcendent world. The Given, however, differs much from the latter. He, similarly to DesCartes, regards that world as one not possessing the qualities of the world as we constantly experience it. It is a world made up of God, souls and matter possessing the attributes extension, figure, motion, impenetrability. The Given, for Locke, is made up of our simple ideas variously combined into complex ideas. For instance, an orange is a complex idea formed by combining a certain color with roundness, a certain odor, a certain degree of softness, and the other similar simple ideas there represented. A coin is the combination of a certain figure, color, hardness, etc.

In Berkeley we get, however, a much more clearly-cut distinction between the two worlds, and therefore one we must consider more at length. First let us hear what Berkeley himself says (*Principles of Human Knowledge*, Pt. 1, Sect. 3 and 4):

“That neither our thoughts, nor passions, nor ideas formed by the imagination, exist without the mind, is what everybody will allow. And to me it is no less evident that the various Sensations, or ideas imprinted on the sense, however blended or combined together (that is, whatever objects they compose), cannot exist otherwise than in a mind perceiving them. I think an intuitive knowledge may be obtained of this by any one that shall attend to what is meant by the term exist when applied to sensible things. The table I write on I say exists, that is I see and feel it, and if I were out of my study I should say it existed, meaning thereby that if I was in my study I might perceive it, or that some other spirit actually does perceive it. There was an odour, that is, it was smelt; there was a sound, that is, it was heard; a colour or figure, and it was perceived by sight or touch. This is all that I can understand by these and the like expressions. For as to what is said of the

absolute existence of unthinking things without any relation to their being perceived, that is to me perfectly unintelligible. Their *esse* is *percipi*, nor is it possible they should have any existence out of the minds or thinking things which perceive them.

"It is indeed an opinion strangely prevailing amongst men, that houses, mountains, rivers, and in a word all sensible objects, have an existence, natural or real, distinct from their being perceived by the understanding. But, with how great an assurance and acquiescence soever this principle may be entertained in the world, yet whoever shall find in his heart to call it in question may, if I mistake not, perceive it to involve a manifest contradiction. For, what are the forementioned objects but the things we perceive by sense? and what do we perceive besides our own ideas or sensations? and is it not plainly repugnant that any one of these, or any combination of them, should exist unperceived?"

Berkeley then tells us that the *Given* consists of our states of consciousness. In short, everything that I can refer to as a fact, as evidence, is but a mental state in me. The objects I see about me, factual as they all are, I find to be visual perceptions in me. My own body, whose existence I cannot for a moment doubt, I find, when I ask myself what are the facts that I am referring to or naming when I say my body, to be but so many visual perceptions, tactual perceptions, etc. If by means of some anaesthetic all feeling is gone from a part of my body and my eyes be shut, I lose all evidence for the moment of its existence: and should it come about that all perceptions of my body cease, I find then that all I call my body would pass into nothingness.

In short, all that I call the physical world when analyzed proves to be perceptions. Strange as this doctrine at first sounds, a little thought makes it clear. Surely without ears in the world there would be no sound. Present-day physics

shows us that the thing that really exists outside the ear is but waves of air striking the drum of the ear. But what in turn are the air waves but so many things that we see or the evidence of whose existence we see, etc. If we then take from the world of our daily life all that we call the perception of that life, what is left? Clearly nothing, for it was but our perceptions.

The Given, or the Factual according to Berkeley consists of our states of consciousness. The only other existence is the transcendent world made up of the finite spirits and the Infinite Spirit.

Hume follows Berkeley in this view of the Given, and the difference between the two is that Hume carries the doctrine out far more radically. The tendency in Hume is toward idealism because in his strict adherence to many of Berkeley's views he tends to dissolve even Berkeley's transcendent world into our states of consciousness. None the less Hume seems clearly to have stopped before reaching the idealistic position. He speaks still of "natural powers," which, indefinite as the phrase is, refer to some existence wholly beyond the Given.

Similarly in those realists that have followed these writers, the Given is consciousness, and where this is more accurately expressed, "my own present consciousness." If this Given tell me about a world in which "I" am but an infinitesimal part, that world if it exist out of my consciousness is a transcendent world and is not a part of the Given itself. The Given is solely "my consciousness."

§ 49. *The Relation between the Transcendent and the Given*

The realist having divided the universe into two worlds must be held responsible, if that be within the bounds of knowledge, for the solution of a further problem, that is, the relation obtaining between the two worlds. It is not to be

supposed that this relation is zero, for then we should have not two worlds or systems in one universe, but two universes. Nobody has carried the doctrine so far.

We may then expect to find various views held attempting to explain the relation between the two worlds, each view in accord with the different descriptions given of the two worlds themselves.

The Given we have found, is, upon analysis, our states of consciousness. These states of consciousness then are held to be in definite relation with the world beyond. The general view was to regard them as the production of the transcendent world working upon *the Soul, or Subject*. In short, the answer given stated that the Given is the effect, the transcendent the cause. But this view was modified by being made much more definite. The transcendent world was divided into the subject of our states of consciousness and a world beyond, or outside that subject. That is, the states of consciousness are not regarded as existing off by themselves but as existing in a subject, or soul, which subject is a member of the transcendent world. Now the Given is not merely the production of the transcendent world, but more definitely it is the combined result of the transcendent world outside the subject working upon the subject and the subject in turn remoulding or reacting upon this foreign matter. In short, the Given is produced by the activity of two distinct elements, the subject and the world beyond.

Yet this was not the only view held. Among the followers of DesCartes, the Occasionalists, and Leibniz and Berkeley, this was in part modified. The world without the subject in turn was divided into two elements, one the Infinite Being, or God, the other the world He had created. Now, the Given is no longer the combined result of the working of the subject and the world without, but is the working of God upon the subject, or the subject's own production by

right of the powers created in it at the beginning, or again the two, sometimes the working of God upon the subject, and sometimes the activity of the subject itself.

These different views we must now consider more in detail.

§ 50. *The Relation between the Given and the Transcendent World is that of the Modification to the Infinite Substance*

The relation between the Given and the transcendent may be of two chief kinds. The difference is generally due to whether the philosopher be a singularist or pluralist.

The Given is by all realists interpreted as one set of the manifestations of the substance; and the questions that give rise to differences of opinion are due to the fundamental question, whether the Given be the manifestation of but one infinite substance, or be due ultimately to the activities of more than one substance. An excellent example of the former view, and the only one we need consider, is found in the teaching of Spinoza. As said, the first theory of the relation between the Given and the transcendent is that which follows from Pantheism. According to Spinoza, the Given, or the totality of our states of consciousness, forms a part of one of the infinite modes, the infinite understanding of God. Like all the other modes, this infinite mode follows necessarily out of one of the infinite attributes of God that express his essence, or in other words, the essence of the infinite substance.

Now, what is this relation between the infinite mode and substance? According to Spinoza, it is one of necessary consequence. The mode follows out of the nature of the substance, just as the different properties of the triangle follow from all eternity to all eternity out of the nature of the triangle. The relation then is a logical mathematical one. Without the substance the modes can neither be nor be con-

ceived, just as little as the properties peculiar to the triangle can exist without the triangle.

Now in the infinite mode of the attribute *Cogitatio*, or the infinite understanding of God, what we call the Given is a part. The infinite understanding is eternal, but the finite mode, our conscious life, has a beginning and an ending in time. None the less it belongs to the infinite intellect of God; and thus in as far as it reflects the world of which it is conscious clearly and distinctly, that is truly, it is nothing less than God coming to self-consciousness. It is God knowing God; and this true knowledge is bound together with the highest love, for the Given when clear and distinct thinking is the love wherewith God loves Himself. In short, the Given is part of the infinite modes that follow out of one of the infinite attributes of God; and in its highest form it is the universe coming to self-consciousness in one of its modes.

§ 51. *The Given is due to the Interaction of Two or More Substances*

The opposite theory as we have seen holds to pluralism and finds the Given to be due to the interaction of at least two substances. But the relation between these two substances may be of quite a different character according as our pluralism is theistic or atheistic. Now one of these substances is always that which is called the transcendent self or soul, no matter whether our doctrine be materialistic or spiritualistic. Thus the Given may be a manifestation of the soul as acted upon by God, by finite substances other than the soul itself, or (a possible theory) might be the activity of the soul alone.

But again the soul may have much or little to do in determining the character of the Given. We thus get several hypotheses as to the relation of the Given to the transcendent by combining variously these possible views.

If we hold that the transcendent world other than our soul acts upon the soul and determines the character largely or entirely of the Given and in so doing makes the Given a true reflection of itself, we have Realism. Note well that this use of the word Realism is quite a different one from that we have been considering. In its extreme form, Realism is spoken of as Naive Realism. If however but part of the Given be gotten from the activity of the world without the soul, namely the raw material or stuff; then the other part, the form (as in Kant) is given it by the soul. In this doctrine we have Transcendental Idealism.

If again the transcendent world be not at all like the world reflected in the Given, if in fact it be not caused in us by a finite transcendent world but by God, the Infinite Spirit, we have the Berkeleyan Idealism. The meaning of this word Idealism is of course again quite different from that given to it in our previous sections.

If finally we grant that a finite transcendent world is about us, and that the Given reflects or mirrors that world but in no way is due to any activity of that world upon our soul, but solely to the activity of the Deity; then our theory is Occasionalism.

Occasionalism in turn may be of two sorts. First, we may say that God is constantly giving rise in us to the Given and making that Given thus reflect or mirror the changes or some of the changes as they take place in the world of substances.

Secondly, we may deny this and affirm that God in the creation of the soul created in us potentially the Given, that thru the self-activity of the soul this Given gradually unfolds or becomes actual, and further, that God at the beginning has so ordered our souls that this Given will unfold in us by a pre-established harmony so that at any given moment it will reflect the universe as a whole.

The former sort of Occasionalism we shall call the Transcendent Occasionalism, the latter the doctrine of Leibniz, Immanent Occasionalism. We have now to consider these different theories separately.

§ 52. *Realism*

Realism, we have seen, claims that in the interaction between the remaining transcendent world and our soul the resulting consciousness gives us a more or less perfect reflection of the transcendent world and its activities. Now of course this likeness, or copy of the transcendent world may vary thru all degrees of similarity. We may thus pass from the view that the transcendent world is exactly as our consciousness seems to give it to us, over to the conviction that but very few elements of the world revealed in our mental states are true of the transcendent world. That is, we may proceed by steps from extreme realism more and more toward idealism.

The extreme realistic hypothesis is generally referred to as naive realism. This is the view of the untrained mind, and as such we all have been naive realists. The world looked at by the philosopher as transcending consciousness is for the realist the same as that our eyes, our ears, etc., tell us of. We ask no other evidence of their transcendent existence than perception gives. This view however in its extreme form cannot long be held. We soon recognize the difference between an object seen at a distance or, to put all in a clause, between the circumstances when we can best see an object and those where our senses are not entirely to be trusted. Life is sure to bring cases where we are deceived by perception, and we soon learn when we can in our particular environment trust our senses and when not.

But a great difficulty arises from the fact that the more we examine the information given by the senses the less certain

are we of their validity for the transcendent. The outcome of this is a general skepticism as to the credibility of sense knowledge. We turn into rationalists, and where rationalism is found at fault into skeptics. Thus the Pre-Socratic Greeks and the Sophists.

As Sophists men entertain the belief that the most our senses can give us are the opinions of the individual, namely, they are wholly subjective. Objective validity sense is utterly incapable of furnishing. Man is the measure of all things, but only in the sense of each for himself and each moment for itself. Knowledge of a world that is transcendent, in short, a universally valid knowledge, cannot be gotten. The senses do not give it, and reason is after all only so much conflicting opinion. We thus get the ancient skepticism against the senses.

Now of all the data given in sense, the realist has generally, in ancient atomism and in modern times, held to the subjectivity of the so-called secondary qualities, but to the objectivity of the primary qualities. Physics to-day teaches such a doctrine. Enough has already been said about this view. The transcendent material world is one lacking all such qualities as color, temperature, sound, taste, etc. It is a world of quantity, its characteristics are impenetrability, extension, shape, motion. All else that we perceive is purely the creature of the mind and has no validity for the world outside the Given.

We are not here concerned with the validity of any form of realism, nor whether the doctrine has been rightly formulated by the realist himself. One thing however seems sure, the realist of the Cartesian and Lockian type is certainly pointing in this doctrine to some real difference among the data of sense; whether however they have successfully interpreted that difference is quite rightly a matter of decided doubt.

§ 53. *Transcendental Idealism.*

Literature. Cf. Weber, on Kant.

The second form of the doctrine that the Given is produced by an interaction of two or more transcendent substances is that of transcendental idealism. This is the doctrine of Immanuel Kant.

As we have seen, Kant holds that two elements exist in the Given; the one is the material given by sense, the second is the order wrought in that manifold by the reason. We have thus in his teaching the view that part of the Given is due to the action of the "things in themselves" upon the intelligible self, or the thing in itself we call the soul. The form, however, is the production of the so-called transcendental ego. The forms contributed to the world as empirically known are time and space, and on the one hand the necessary order of sequence and coëxistence among events, and on the other the permanent, or substance presupposed in their change. The manifold, however, that fills in time and space or is therein contained, the events that are ordered into a cosmos out of the chaos of raw material, all that comes from the activity or interactivity of the transcendent world.

Kant believes that by holding this doctrine and only by so doing two things are made explicable: first, the universal judgments we are able to make concerning nature, that is, the judgments of mathematics, and of pure physics—these are to be explained only by the reason being the source of that which these judgments interpret: secondly, the fact that we are utterly unable to make similar judgments about events making up the manifold of nature, and are forced thru endless observation to prove and correct those judgments we do make, shows the source whence these events owe their existence to be foreign to the reason.

§ 54. *Idealism.*

Literature : Paulsen, p. 344-351.

Realism we saw may by gradual steps approach very closely toward idealism, and, in fact, by so doing has in cases passed over into idealism. The arguments of the latter we are already familiar with. It cannot stop short at the primary qualities, but finds in them just as much a purely subjective knowledge as the secondary qualities were found to be. In short, there is found by the idealist no criterion that warrants our asserting the existence of a transcendent world corresponding to that found in the Given. To assume such a world is a mere superfluous hypothesis; and without some evidence of its existence, we are wholly unjustified in entertaining seriously the possibility of its existence. To entertain seriously that for which we lack all evidence, is to open the flood gate for all the theories the imagination can construct. Science is too busy to spend its time in that way.

It is however true according to the idealist that the Given does not arise spontaneously in us. In part it may, but for vastly the greater part we must presuppose a world beyond that produces in us the Given thru interaction. This world, however, is an entirely different world from that revealed in the Given. By Berkeley, as we have seen, that world was held to consist of God, the Infinite Spirit, and of finite spirits.

§ 55. *Transcendent Occasionalism.*

Literature : Weber, p. 317-321.

Occasionalism is in part realistic, namely, in so far as it holds that the Given does reveal to some extent the transcendent world. As against realism, however, it denies any interaction between that world and the soul, placing the cause of the existence of the Given in God, the ground or creator of the world. Occasionalism is accordingly theistic.

Transcendent Occasionalism claims that God is constantly producing the Given in us, so that its creation by him is parallel in time with the activities in the transcendent world corresponding to its revelations. This doctrine was held pre-eminently by the Cartesians, Geulincx and Malebranche. The basis of their argument against an interaction of the remaining created world and our souls was that the two are different substances. Since DesCartes had defined substance as the absolutely independent existence, there could be in no way any interaction of mind and body. DesCartes himself, however, failed to see this consequence of his doctrine. It did not, however, long escape the notice of his followers.

Geulincx makes it a principle that when I do not know how a thing comes to be, I cannot be the cause of it. Now, I do not know how the members of my body are moved, then I, my mind, cannot be the cause of that motion. The only mind that can know how such activity arises is the Infinite Mind of God. God, therefore, is the sole cause, our consciousness only the "occasion" of the coming into being of these activities.

Malebranche also rejects the possibility of mind and matter interacting. He goes almost as far as to say that the soul ceases itself to be a real agent. It is God acting in me that constitutes the only true agent, but not only acting in me, it is He that thinks in me. The mind in fact dwells in God, and in Him perceives the world. Here we find Malebranche and occasionalism on the verge of passing into pantheism.

§ 56. *Immanent Occasionalism.*

Literature. Weber, p. 345-356.

But there is another form of Occasionalism, namely, that of Leibniz. It is also called the pre-established harmony.

God does not at every moment of time perform the creative

act giving rise to the Given in me. On the contrary, before all time in the creation of the world of monads, he created potentially in each the Given that thru the ages was gradually to unfold itself, or to become actual. God did this in such a way that the order maintained in the Given corresponds always to the order of events in the transcendent world. Thus, at any given moment of time, the infinite number of perceptions in any one monad gives a more or less obscure or clear and distinct reflection of the universe as a whole. This harmony was compared to two watches so constructed that the time indicated by each at any one instant would be always the same as that told by the other. The two watches none the less do not interact. Each tells the time according to the laws of its own nature, and absolutely independent of the motion of the other watch. The ground of the harmony is in their maker, who has so constructed them that potentially they have in them for all time this surety of agreement.

SUB-DIVISION B. IDEALISM.

§ 57. *General.*

Literature. Windelband, section 41.

Having now considered the problems and the theories resulting from the doctrine that there is transcendent reality, or reality not to be referred to the Given, we have still to treat the opposing hypothesis, namely, Idealism.

Idealism, in this sense of the word, we have seen, declares that the Given is the sum total of reality, that a reality beyond the Given is a meaningless expression, positing an absolute zero.

If we are to assert the existence of such an entity, it must be upon the basis of some evidence. Now no matter what this evidence may be besides, it must be itself part of the Given. It must, in short, be a fact to which we can appeal

as evidence. If, then, on the basis of such a fact we affirm the transcendent, we are doing nothing more than interpreting the fact, or if more, committing the fallacy of non-sequitur. Thus if we keep within the bounds of evidence, we are simply interpreting the fact in question, it may be, of course, by other facts within possible reach, namely, that can become facts for us. We are asserting nothing more than the Given, or nothing that cannot be referred to it. If, however, we go beyond the Given, and mean by the transcendent something not given, where then is our evidence? We go beyond our premises, and the only escape from committing the fallacy of non-sequitur is to produce at least some new evidence. But what can this new evidence in turn be but the Given, or facts?

In short, the idealistic position says, for our assertions we must have evidence, the only ultimate evidence is facts, and facts mean the Given; therefore all our assertions are but interpretations of our evidence, and any transcending of our evidence is but to wander beyond the reach of all possible knowledge, because beyond the reach of all possible proof.

But further, a careful examination shows that to assert what is beyond all possible proof is to talk nonsense; and this is exactly what the idealist accuses the realist of doing.

§ 58. *Is the Given Determinate or Indeterminate?*

The first question that arises after once adopting the idealistic hypothesis, is, What is the Given? can we give any positive information about it as a whole, or is our definition of the Given upon analysis a mere series of negations? In other words, does our definition of it tell us strictly speaking what it is, or only what it is not? Still otherwise expressed, is the Given as a whole determinate or indeterminate?

This question at the present day seems to be answered in both ways. Some metaphysicians appear to hold that the

Given is determinate; others protest earnestly against this view, holding the Given to be indeterminate.

§ 59. *The Given Determinate.*

Granting the Given to be determinate, how then shall we describe it? What is the Given? The answers variously offered to this question run: The Given is thought, is sentience, is consciousness, etc. That is, the reply we get seems to say, the Given comes under the concept or is identical with consciousness.

Now upon examination we can narrow this determination of the Given considerably. Strictly speaking, this type of idealism must hold that the ultimate fact is not consciousness in general, but present consciousness, and then again not the consciousness of anybody in general, but "*my own present consciousness.*" That is, whenever we are called upon for the facts upon which any judgment ultimately rests, we find these facts always to be elements in "*my own present consciousness.*" If we accept as proof the consciousness of others, we meet with the difficulty that this consciousness is never directly known by us, but is gotten at thru inference. Thus when a man born blind tells me much about colors, and I am unaware that the man, a stranger to me, is blind; I can be entirely deceived as to what his real consciousness is. The words he uses may in no way betray the limitations of his perceptions. Now what is here true in an extreme case, is true in all cases. We are never sure, but are always obliged to infer what are the facts as revealed to the consciousness of another mind.

We, in short, are always obliged to fall back on the facts as known directly by us in order to prove the inferences we make regarding what are facts to other minds.

Thus the blind man is able to interpret the world as given in our consciousness only by the facts as revealed in his own.

His own consciousness therefore contains all the facts to which he can ultimately appeal for proof. Proof therefore is limited to the facts of "my own consciousness."

But is this all? Can "I" use "my" whole conscious life as the ultimate fact upon which all proof is to be based? How about "my" past states of consciousness? They once were, but now exist no longer. Nothing that we can do will bring back the identical states themselves. The only way they are given is thru memory or at least in "my" present consciousness. In short, the past is known to me always in the present, never in the past. How often in fact does memory seem at least to lead us astray regarding the past. Whether memory actually does so or not depends upon whether we regard memory as a judgment. But whether it does or not, as far as memory is an assertion about the past, it certainly does so. If memory, or our present consciousness then tell us about the past, the past is for us no longer fact, it is an inference, and as such needs proof. We often trust our memories, but also often distrust them. We clearly recognize in practice the need of more proof than merely the fact of remembering.

But in what can the proof consist? It cannot consist of past consciousness, for the existence of this as we find needs itself proof. It cannot consist in future consciousness, for this is not yet within reach and therefore cannot be used. It must therefore be present consciousness. Present consciousness therefore gives us fact, and on the basis of this fact all assertions about the past and future as well as the present must rest. All appeal to ultimate proof must be to facts given in present consciousness and *not only to present consciousness but to "my" present consciousness. The Given therefore, if it be determinate, must sooner or later be pushed into the four walls of "my present consciousness."*

This view however is not always held by idealists that

claim the Given to be determinate. It is however the position to which they are and must be pushed, if they will be consistent.

This type of idealism is easily reached by followers of the Empiricism of Locke, Berkeley and Hume. It has been called by some Conscientism. In Germany as represented by Schuppe and others it is called by them Immanent Philosophy. The word immanent is used in opposition to transcendent, or realistic.

The Neo-Hegelian and Neo-Kantian Idealism tends strongly to regard the Given as determinate; experience, or sentience being the name sometimes applied to the same.

§ 60. *The Given is Indeterminate.*

Opposed to the view that we are able to say what the Given is, is the position that it is indeterminate. The only way this latter view will allow us to determine the Given as a whole positively is to find some relations or uniformities universally present in the Given, and determine the Given as a whole by positing this uniformity, or law of it.

But let us consider the arguments more at length. We have found that the Given means the sum total of the facts, or, as sometimes expressed, everything within the bounds of possible or conceivable experience. Our question will then run, Can we tell what this sum total of the facts is?

Now the idealist has already told us that there is no reality beyond the Given, that, in a word, the Given and Reality are synonymous. Hence this same question equals the inquiry, Can we tell what the sum total of Reality is? Here, of course, it would be fatal to the argument to forget that the expression "What is a thing?" may have more than one meaning. Let us then first see what we mean or may mean by the question.

When we ask what a thing is, we generally mean what are

its conferentia and differentia. In short, we wish to learn the proximum genus and the characteristics that differentiate the object in question from other species of the same genus. Thus, when we inquire what is a mammalian, we might get the answer, a mammalian is a vertebrate (proximum genus) that gives suck to its young (differentia). This is the general meaning of the question, what is a thing? If we desire a more elaborate description than a definition gives, this description need not more than follow the same lines as the definition.

But our question might not necessarily mean this. We might feel that we had answered the inquiry sufficiently by telling of some law or relation present thruout the class or obtaining universally between the class or object and other classes or objects. Thus I might interpret thunder by telling how it always follows lightning. I might describe water by giving its boiling point. I might tell what is the organic world by referring to its dependence upon the inorganic world for its sustenance.

A third possible meaning of the question, "What is a thing?" is what is some universal attribute of the thing, an attribute that does not include all its attributes, but one that at least is not possessed by any other object. Thus the power of voluntary action may be possessed by all animals of certain classes. A certain custom may be universally and peculiarly practiced by but one race or tribe of men. The building of a certain description of nest may be done by but a limited number of species of birds. Certain chemical combinations may be good conductors of electricity.

Strictly speaking, in this third possible interpretation, we are giving a sort of differentia; but we need not give the genus proximum, and we need give only that which in part differentiates the object or class from all others.

A fourth possible meaning would be that merely some in-

formation is required concerning the object and not necessarily anything that differentiates the object from all others. Thus, if I ask, Who was Andrew Jackson? the question may be answered by saying, he was a president of the United States. What is a bacillus? a species of bacteria, etc.

We are now prepared to ask in which of these possible meanings is the question, "What is the Given?" intended to be taken.

The idealist that holds the Given to be indeterminate takes the question in the first sense, namely, he sees in the problem the question, what is the proximum genus and the differentia of the Given? Further, he accuses the other idealists of taking, perhaps unconsciously, the question in the same meaning. If the other idealists do hold this view, the indeterminist certainly has the better of the argument. If the Given equal the sum total of reality, how possibly are we to get a still higher genus? The only way we could do so would be to adopt the categories of the Stoics, *i. e.*, divide τὸ τι (anything whatever) into the τὸ μὴ εἶναι and the τὸ εἶναι (not Being and Being). In this way we could speak of the Given as a species of the anything and differentiate it from the non-being or the non-existent. In either case the Given and Being are synonymous, and the only thing we can differentiate the Being from is the non-existent. This much the indeterminist will admit, but no farther. The other idealists in calling the Given consciousness, or any other thing, dare not mean by such a term more than Being, providing, of course, they are giving the conferentia and differentia. In short, if they mean more they are contradicting their own premises, which make the Given the summum genus of existence and, therefore, deny it to be a species of a higher genus; and, secondly, if not this, in applying the word consciousness to the Given they take all the ordinary meaning from the word consciousness and make it equal Being in

general. Thus any attempt to determine the Given, meaning by determining to give the proximum genus and differentia, is fruitless. Every attempt is meaningless, either leading to a contradiction or taking away all meaning except "Being in General" from the term employed.

But again, if the Given be the Summum Genus, its extension is infinite, that is, all reality comes under it as a concept. But we find that as the extension of concepts increases, their intension decreases. Now the extension of the summum genus is infinite, its intension is therefore zero. But when we assert of anything a concept without intension we are asserting nothing concerning that thing. In short, our assertion is a truism. The determinate idealism is loudly proclaiming what at first seems much information, but when examined proves to be mere truism. When he applies the word consciousness or experience to the Given, he is taking from the term all intension and therefore all positive meaning and transforming the word into a highest concept. This he seems to do quite unconsciously, because he keeps talking as tho he were giving some information about the Given as a whole by calling it experience. As a matter of fact, however, his terminology is worse than meaningless. Worse because it has the appearance of having intension, when every particle of such intension has been surreptitiously removed. Therefore, if we mean this by the determination of the Given, our position is untenable. It is worse, it is absurd.

If, however, the other party mean by the determination of the Given one of the remaining interpretations of the question, What is the Given? then this difficulty is avoided. The determination of the Given as a whole may in that case mean giving some universal law, or uniformity, obtaining thruout all existence. This is in fact the truth back of any such idealism as the Berkeleyan hypothesis, and in fact

back of most attempts to determine the Given by calling it consciousness or some form of consciousness.

Thus it is a universal law of all events that there is a uniformity of co-existence between them and certain processes in that which is called my nervous system. Do what "I" will, "I" never get a fact not found in this uniformity with nerve events.

To get a fact we call "seeing Calcutta," our bodies have to be in certain definite relations with the objects seen. In New York in the body, this fact "seeing Calcutta" never obliges us by making its appearance. In short, we all know to perceive, to conceive, or in any way to gain facts our nervous system is always as far as evidence goes a necessary element. All that we call the world is not given us in each moment, but to get the different elements that make up that world our nervous system must come into definite spatial relations with certain other physical events.

In short, we have the empirical law of nature, based on an indefinite amount of evidence, that all events to which we can appeal as facts are in uniformity of co-existence with processes in our nervous system. Now if the idealist mean this when he speaks of the Given being consciousness or experience or "my" consciousness, all well and good. He is not determining the Given in the sense of putting it under a higher genus. He is simply giving us a law found by long experience and by inductive reasoning to obtain among events. In no way does this then give us an ontology of the Given. It simply gives us a law. If the idealist mean this, why does he not say so, and stop misleading almost everybody by the entirely unnecessary and deceiving terminology that speaks of the Given as consciousness. The word consciousness has gotten a very definite meaning for most men; and when the idealist talks about all facts being facts of consciousness or of reality being sentience, what is one to do but

understand according to the received notion of the words he employs? If we do this, his doctrine is not a truism, but downright nonsense. Reality is not sentience; some events contained in the Given are sentience, but by far the greater part are not. To call all facts sentience is to take every positive meaning from that word or to talk nonsense, as a little knowledge of the extension and intension of concepts shows.

What, after all, is this type of idealism doing? *It is mixing up the formal process with the material content.* To assert the formal process is not to interpret the object of knowledge. It is to state a truism. What a determination of the Given must mean, or, in short, telling what the Given is, is to interpret the object of knowledge. This, however, means that we are interpreting the material content. As we saw in Berkeley, so here is set forth truism upon truism that, analyzed, says an object, as such, is an object of knowledge. This is true, so true that it is a truism. But does this say one single word that interprets the object of knowledge? Not in the least, unless the assertion of the formal process be an interpretation of Reality. Strictly speaking, it is such an interpretation; but as an interpretation, when analyzed, it proves to be but the empirical law given above. In short, the idealist means this law, is talking nonsense, or is stating that an event is an event, an object is an object.

If we take the question in the third sense, we should then seek for some universal attribute of reality. Such a universal attribute may be time. That is, the determination of the Given might mean that we regard all reality as having time duration, and that non-duration would mean non-reality.

Finally, we may conclude that the difficulty between those idealists that hold the Given to be determinate and the opposite party, requires first an exacter statement of what is to be meant by the expression determination of the Given taken in this limited sense.

When employed in this limited sense, namely, where we are not dealing with the Given as a totality, or, more exactly, where we are not attempting to give it as a highest concept intension, we may say both parties regard the Given as determinate. But this in turn expresses but half the truth; both parties would agree that all determination is a determination of the Given, and only of the Given. But never should the indeterminate be mixed with the determinate. As we shall now proceed to show, the Given is the Metaphysical Subject of all predication.¹

§ 61. *The Given the Subject of all Predication.*

Aristotle defined substance as that which neither is predicated of a subject nor is in a subject. His definition can be applied correctly to the Given. The development of the Aristotelian doctrine of substance to its logical end in Spinoza but shows this more clearly. Spinoza's doctrine of substance and its unity tells us when analyzed little more than that substance is the subject of all predication, or otherwise expressed, reality as a whole is the subject of all predication. *If this be true and if the Given equal the sum total of Reality, then the Given is this Universal Subject.*

This statement of course does not mean that our sentences will grammatically have the Given as their subject. Such a proposition is of course absurd. It affirms however that every judgment or statement is either true or false. It is true because it agrees with reality, because it interprets reality correctly. It is false when it fails to do so. Therefore if all predication be true or false it must be so because of its claim to be an interpretation of reality. This we shall

¹ This statement seems at first to have to undergo some modification if we adopt the Stoic classification as above given. In that case, "non-Being" may be the subject of predication, but, of course, only of negation; but an absolute negation is no predication at all. A negation, as such, contains a positive element, is therefore an interpretation of Being.

explain at length when we discuss Conceptual Knowledge. Here all that we wish to tell the reader is that the Given of the idealist becomes at once what we must admit reality in general to be.

The Given is the reality which is being interpreted, and it is all that we can interpret. In short, the very nonentity of the realistic transcendent world was shown in our inability to interpret it or to say anything about it.

But we have to limit our proposition on its other side. First, we could not interpret a transcendent world. Secondly, all interpretation is of the Given as a whole. To interpret a part is in short but an interpretation of the whole. The interpretation of the part out of all relation to the whole would be to contradict ourselves. If we forget that it is a part we misrepresent it. If we interpret it as a part, we are interpreting it as a part of the whole. In a word, we are interpreting the whole partially.

The idealist then finds in the Given the logical outcome of Aristotle's definition of substance as the subject of predication, and he declares in spirit with Spinoza that the subject is involved as a whole in all predication.

We can then assert as a principle that if there be knowledge, or predication, the Given, or reality is known.

If however we use the word knowledge in a broader sense so as to include the Given, or as it is sometimes called Simple Apprehension; then of course to say that there are facts is but to put in other words that reality qua Given is known.

In the former sense, however, where knowledge equals conceptual knowledge, we certainly have a knowledge of the Given, or Reality, because as we see all predication is of the Given as the subject.

Finally, in a still narrower sense, if knowledge equal true conceptual knowledge or true predication, then there is a

knowledge of reality, if there be such a thing as true predication.

But before entering upon the problems of conceptual knowledge, we must, as in the case of realism, to some extent presuppose what is to be explained more fully later and consider first some fundamental interpretations of the Given from the point of view of idealism.

§ 62. *The Problems of Realism as Transferred to Idealism.*

Many of the questions that were asked of the realist concerning the transcendent world can be asked of the idealist. Just as before, the two-fold problem of the attributes and the subject or sustainer of those attributes, *i. e.*, the ontological and cosmological problems, arose; so now we may in turn ask of the idealist, what are the attributes *of* reality, and must that reality be regarded as a plurality of subjects possessing these attributes, or is such a plurality in conflict with principles that must as such be respected? We, in other words, have again the distinction raised between substance and its modifications, between monism and the other ontologies, between singularism and pluralism.

Three questions are then to be asked the idealist. First, is reality rightly interpreted in the assertion of the distinction between substance and its modifications, or as idealism often expresses it, is reality noumenal and phenomenal?

If so, how then does he answer the questions to be asked concerning the noumenal; and thirdly, how does he answer the questions concerning the attributes or the essential character of the noumenal as revealed in phenomena?

Now if we mean by Substance the Aristotelian conception, *i. e.*, the Subject of predication, we have seen that the Given, or the Whole Universe of facts, is Substance. But Substance may mean two other things that may possibly to some seem reducible to one and the same thing. That is, by sub-

stance we may mean that which underlies or is the subject of qualities, or again, we may thereby imply the ground of events.

The latter problem in idealism can best be discussed among those grouped under the head of the Principles of Reality.

§ 63. *Things and Their Qualities.*

What then has idealism to say concerning the existence of a substratum in which the qualities we find present in the Given inhere?

In the first place, the word quality is correlative, and therefore we have no right to apply it as an interpretation of facts unless at the same time we admit the existence of its correlate; just as we cannot assert father without implying the existence of a child of the person called father. But the difficult question is what is the correlate of quality? If we examine the Given, it seems to be only qualities; the thing of which these elements are qualities is never (as we found in the case of realism) as such manifested. But the difficulty must be avoided, if idealism is to be self-consistent in making a distinction such as the assertion of quality. This it can do only by pointing to the facts that it is interpreting. In short, when we assert that qualities exist, we are interpreting some fact; now what is that fact? It is this. *We find events or qualities ordered.* Thus qualities that make up the object orange are put together in such a way that we can speak of this object as a unity, which however, analyzed, proves to be a combination of very various qualities. Now we find thruout the world of facts these combinations of qualities and call them things. But what is the thing over and above the qualities? *Nothing but the uniformity of their order.*

When then we speak of oranges, books, houses, men, we are talking about certain uniformities in which given events

make their appearance. The things pass out of existence by destroying this uniformity to such an extent that we can no longer predicate identity.

But some of the uniformities, or combinations of qualities, are, as we have seen, more permanent than others, and some are found to be altogether permanent. In this way we find that some things soon pass away and others come in their place. But, on the other hand, we do find things, or uniformities, that are much more permanent. Such more permanent uniformities, or combinations of qualities, constitute the so-called chemical elements. Man has never succeeded in destroying the combination of qualities of the thing *e. g.* called hydrogen.

We may believe, however, that this is a practical and not a theoretical difficulty. The time may come when even this uniformity will be done away with, and even all the present chemical elements will be reduced to one. This final element will be the uniformity prevalent thruout all physical events, this uniformity is the thing called matter.

On the other hand we find qualities called states of consciousness, and certain uniformities of their combinations also we call things. These things are souls. Souls then are in one sense something over and above the qualities therein present, but in another sense they are not. Souls are the combination of psychical events into a stream of consciousness.

Now whether the events of the world as we know them are qualities finally of two things, of many things or of but one thing, is our next problem, and is a difficult problem indeed to answer.

§ 64. *Monism, Dualism and Infinitism.*

Before attempting to consider the problem mentioned at the close of the last section we must speak of the attributes

of reality. This we need do in but a few words, for we have already considered the question sufficiently at length. We found that consciousness as known to us is different from modes of motion, it is in short non-spatial. Now if we are unable to reduce these two sorts of manifestations to one new sort, in short, if we have here absolutely permanent uniformities in the characteristics of things; then we are justified in inferring that consciousness and physical phenomena correspond to two attributes of reality. This then would lead us to reject Monism and adopt Dualism. Of course, where the arguments previously given are not found adequate, we may expect an idealistic monism of the materialistic or spiritualistic type.

The doctrine of Infinitism too must be here mentioned. Empirical evidence we have none of the existence of more than two attributes, and as long as our dualism is empirical no direct conflict need be raised between Dualism and Infinitism.

Difficulty arises here only when we seek by a priori reasoning to assert that reality is richer in attributes than experience informs us. Whoever believes that the problems of the number of attributes must be settled by empirical evidence will reject Infinitism. The other party may attempt to extend rationalism as far as this problem and may tend toward Infinitism.

As far then as our empirical knowledge reaches, the distinction between these two attributes seems final. How does this fact influence the answer to the problems of Cosmology?

§ 65. *Singularism and Pluralism.*

If dualism be accepted as final, does not this seem to point to two substances back of the manifestations? It certainly does seem to. Pluralism thus appears to be the outcome

of the sharp distinction we have had to draw between consciousness and physical phenomena. But have we not in making that distinction told but half the truth? It is indeed true that we cannot identify consciousness and any form of spatiality; but on the other hand we do find that the two worlds are not out of the most intimate relation the one with the other. We found, on the contrary, that consciousness is always in uniformity of co-existence and sequence with certain given physical phenomena, and that it has never been found out of this relation. Now what is the meaning of that uniformity? It certainly points to some deeper unity back of the two orders of manifestations. *It in short points to Singularism and not to Pluralism.*

The observation of nature in all its forms reveals to us we believe a world of universal uniformity. It is true we find certain minor uniformities that are of such a character that we must give them the predicate things. Thus we can speak of material things, or atoms, and spiritual things, or souls. But back of all these uniformities there appear to be present great cosmic uniformities that swallow up into themselves the minor uniformities that we have just referred to. We are therefore led to believe that these things are but relatively such and that absolutely they would be found to be but manifestations of one ultimate thing, the absolute infinite substance.

Much difficulty, however, may still be urged against singularism; but in spite of all, it seems, as no other theory has ever seemed, *to be an ideal of the scientific interpretation of the universe.*

§ 66. *The Interaction Theory vs. Parallelism.*

Literature. Paulsen, p. 83-III.

Just as dualistic realism had to deal with the question of the relation of the Given or consciousness to the transcend-

ent material world, so must also idealism be expected to give an answer to the question concerning the relation of consciousness to the immanent material world. That is, does there obtain a causal nexus between consciousness and physical phenomena; or have we here a uniformity of co-existence that is not the causal relation, tho it may, as we have seen, point to a deeper unity back of the two worlds?

At the present day the tendency, especially in psychological writings, is to affirm the so-called doctrine of Parallelism. This doctrine denies the causal relation to obtain between mental and physical events. The essence of this doctrine may be expressed thus. The true relation between consciousness and the nervous processes is not adequately expressed by the assertion that they are in uniformity of sequence, but only in the proposition that they are in uniformity of co-existence. The true sequent of any given nervous event is some other nervous, or physiological event, never consciousness. Could we in any way annihilate the nervous system immediately after a given nervous event that heretofore had always been followed by a conscious state, we are led to believe that the conscious state that by the interaction hypothesis should follow, would not follow. If the conscious state be something other than a nervous event, why, when its so-called cause has occurred, should it be affected by the annihilation of all nerve events? Of course, the interactionist can answer, we have no evidence to prove that it would be; but this is not our question. We are trying to show the difference in premises of the two doctrines.

The parallelist believes that consciousness would in this case not follow. In short, we have not a uniformity of sequence between nerve events and consciousness, but a uniformity of co-existence. That is, if consciousness is to be, there must take place at the same time as consciousness a nerve event. Without this co-existing nerve event there

would be no consciousness, and perhaps vice versa, without the co-existing consciousness there would not be the nerve event. We thus have, according to the parallelist, a uniformity not of sequence or causation between the two worlds, but one of co-existence.

Now the basis of the parallelistic view, and the premise on whose truth or falsity the issue must rest, is the doctrine that motion cannot pass over into consciousness. In all physical phenomena we have present and always present the characteristic spatiality, whereas in consciousness this characteristic is lacking. Now if the physical can become the psychical, then the characteristic, spatiality can be annihilated. This possibility the parallelist with all the thunders of orthodox metaphysics denies.

One thing is certain, we have no empirical evidence by which we can answer the question either way. We have no reason to believe that we have cases of spatiality going out of existence, and we do not know and cannot know empirically the infinite events of nature to such an extent as to deny the occurrence of such a thing. In short, if the premise that spatiality is an absolutely permanent characteristic is to be judged valid or invalid, the appeal must be made to a principle.

This the parallelist really does. He claims not that he has empirical evidence, but that it is a principle, a self-evident proposition, that spatiality is a characteristic that is never lost in any changes that take place in the physical world. In fact, the problem between the two theories cannot be argued out. He that appeals to principles has resorted to the ultimate court of appeal. If his opponent grant not the validity of the court, or be of different opinion regarding the meaning of the decision of that court, further dispute is hopeless. They can but agree to disagree. Is it then a principle that spatiality is an absolutely permanent charac-

teristic? Each reason must answer the question as each answers whether two and two equal four. To us the parallelist seems to be right, it is a principle.

The remaining problems dealt with by idealism as far as the present outline can discuss them may be best considered under the general topics that yet remain, namely, the problems of Conceptual Knowledge and those of the Principles of Reality.

The difficulty always to be met with in discussing idealism is that this doctrine has not the long history back of it that realism has. In short, it has never been definitely formulated in a way that has received general acceptance. Thus to treat of idealism means not to give an old formulation or even a definite formulation, but to ask the reader to come with us into the workshop and to act with us in making such a formulation. To do this however would mean to write not an introduction to metaphysics but a treatise on metaphysics.

Our remaining talk therefore must be confined simply to presenting the chief problems and indicating salient points in their solution.

CHAPTER III

THE PROBLEMS OF CONCEPTUAL KNOWLEDGE

§ 67. *General.*

WE have now considered the problems that rise from the study of the Given, and we have seen why it is that the philosophy of the last two hundred years in England and the philosophy of the last one hundred and twenty years in Germany has tended toward the problems of knowledge and away from the dogmatic realism especially of the seventeenth century. The men that were chiefly engaged in the new movement regarded themselves as investigating a new problem, the problem of knowledge. The problem as a whole was certainly not new; yet very many of the special questions contained in it were new, and the method of its solution was new.

In the Kantian philosophy the problem of the possibility of a knowledge of the transcendent world is a chief question. In Hume similarly the position taken against a transcendent substance both material and spiritual is of chief moment. This matter we have already considered.

But there was another problem present in the teachings of these philosophers. It has been however the work of our own century, especially in Great Britain, to take up this new problem and make it a special subject of philosophical research. The older problem was that of the Given. The new problem is that of Conceptual Knowledge. In short, the question has extended itself from merely dealing with the Given to inquiring how do we interpret that Given and is our

interpretation valid. If there be a problem, the validity of knowledge, here it lies.

That the universe is the object of our knowledge, that it is, in other words, the material given us to interpret, that the task of our knowledge is, in short, interpretation, this seems to be the belief of the time. We are not bothered to-day, as the Greeks of old were, about the deception of the senses. The problem for us is different. The senses, as such, do not and cannot deceive. Deception is always the work of judgment, or what can be transformed into a judgment. As DesCartes told us long ago; a proposition, as such, is not false, it is the assertion of the proposition that makes it true or false. The rising of the sun in the west is, as a mere thought, neither true nor false. Quite different, however, is the assertion that the sun rises in the west. The senses can inform us as they will, their whole information and their contents are one and the same. As such, why call them true or false? It is not what the senses give us that causes the trouble, it is what we do with their contents. My dreams are not false, nor is a novel false. We do not charge the author of a romance with falsehood, nor have we any right to hold our dreams as such. The romance becomes an untruth when it is asserted as history. The dream becomes false when it is confused by us with the sense perception of the waking state. It may be that we are so used to believe and to assert what we see and touch that in the dream itself we never question what it is, but accept it as waking sense perception. The fault here, however, does not lie with the dream as such, but with our acceptance of it, or better, our misinterpretation of it.

But do not my senses deceive me when I walk plump into a mirror, thinking that a passage-way extends before me? Not at all. The information the senses give you in this case is just as little deception as in any case. The trouble was

not in any information the senses gave me, but in the way I accepted and interpreted that information. It never occurred to me to ask, Is this picture before me a reflection? Had I thought a moment I should have found that the information of my senses fitted the presence of a mirror being there just as well as the opposite view, and possibly even better. It was my carelessness, due to habit. It is seldom that I am placed in front of such a mirror where its presence is not easily detected. Hence, I have come to take it for granted that such a picture as my senses then furnished me is to be interpreted "a passage in front of me." The fault belongs to what was done with the contents of sense, or to their interpretation, not to the contents themselves.

We have learned thus to blame the one really at fault, not the unoffending party. The guilty one in deception and falsehood is the conceptual knowledge, or the interpretation of the Given. Were the Given always rightly interpreted, no fault could be justly found. All would go well, and the universe would soon cease to have secrets unrevealed to us. Science would soon have reached its goal, a complete knowledge of reality.

But we all know full well how far we are from this end of our search. Yes, we know more, too; we know that we shall never reach it. But why is this? If this is all there is needed to gain what we want, why can we not interpret the contents of the senses correctly? The reason why is soon found. To interpret we need more information than the senses at any particular moment give us. Hence, interpretation means a careful and endless search for new facts to help us know the old ones. As we learn morally only by hard experience and many a mishap, so also in science do we learn only by ceaseless labor to see in the contents of sense what is there given and what is not. Without the wide and varied experience, chairs, food, friends, and self

would be as little known by us as the individual grains of sand on the seashore while we tramp along it. To interpret then, in some way, means careful watching of the object we seek to know better, and a vast amount of knowledge about other objects, too. Were this not so, the goal of knowledge had long ago been reached.

The need of this wide and varied knowledge in our interpretation hints the way to the solution of the question, What is conceptual knowledge? and of the problems concerned therewith.

These problems are, first, Can we conceptually know reality absolutely, or is all conceptual knowledge relative? and secondly, Is conceptual knowledge valid, and wherein does its proof consist?

§ 68. *The Nature of Conceptual Knowledge.*

Literature. Herbert Spencer; First Principles, Part I, Chap. IV.

What then is conceptual knowledge that it makes us go to so much labor to gain it? Why must we know so much about other things to interpret one thing; why must we watch an object in order to learn its true nature? Why? Because conceptual knowledge is neither more nor less than comparison. To know means to compare. A thing is interpreted when we say it is like this and unlike that.

When we say, "This object is a book," what is it that we are predicating of the subject; in short, wherein does our interpretation of "this object" consist? We say it is the classifying the thing by putting it under the genus book. This interpretation is exactly the same as when we say this animal is an amphibian, etc. We are, in short, classifying. But to classify means to state that the given object has certain characteristics in common with a class, and a class means that there are a certain number of objects having some characteristics in common. Hence, to classify is to

state that the given object has certain characteristics in common with certain other objects. Thus, to predicate anything of an object is to state what it has in common with certain other objects to which we ascribe the same predicate. Each concept gives these common qualities, or *conferentia*.

Now the only words which may not always be thus regarded are proper names, or names or concepts having no intension. We often do use a proper name, grammatically speaking, as a concept with intension, but logically, the proper noun then ceases to be a proper name, and is just as much an ordinary concept with intension as tho it were not spelt with a capital. When, however, we name, say an island, Caroline, we do not by means of that name wish to predicate of the island any characteristics, or qualities. The name Caroline is of use solely as a means of identification. Any other name that would have served the purpose of such identification could have been used by us just as well.

We find then to predicate is always to compare two or more objects and to find them in certain of their qualities alike. But it is more than this. When we say, "This object is a book," we are asserting more than that it has certain qualities in common with other objects called books. We are asserting that in as far as it is like these objects in this particular respect, it is unlike every other object in the universe. Thus, to place an animal under the class vertebrate I am at once taking it away from, or denying that it belongs to, the class invertebrate. Again, when I call the object book, it is at once clear that it cannot be a table, a window, a house, or what not else. Of course, the object may have many other qualities than those in question that are like the qualities of objects other than book. But this limitation is given place when we say that as far as the object is a book, so far is it unlike everything else. In other

than these particulars it may have characteristics that would enable us to put it under thousands of other concepts.

If we may use the following figure, complete predication of an object is like fixing the latitude and longitude of some point on the earth's surface. To give the latitude alone helps us to locate the place, but there are millions of other places having the same latitude. Again, to give the longitude alone helps us no further. But, on the other hand, when we have both we can locate the point definitely. Likewise in telling what an object is, or in interpreting an object, to give one genus to which the object belongs is not sufficient to determine it accurately. We must have concept after concept given us until the combination of predicates asserted of the given object is sufficiently great to differentiate this object from every other in the universe.

Now, all this differentiation, as we have seen, consists on the one hand in asserting the likeness of one or more qualities of the given object with one or more qualities of certain other objects, and on the other hand, in asserting similarly the unlikeness, or difference of these qualities with those possessed by other objects.

In all this what we have done is merely to assert the results of comparison.

But, it may be said, a large part of our conceptual knowledge is not in the form of propositions. I may go along the street seeing hundreds of objects that I at once recognize, and yet during the whole time not form a single proposition. Every lamp post and house I see I know; I do not say to it, "You are a house, a lamp-post." Hence conceptual knowledge is an expression far broader than mere judgments expressed in the form of propositions.

All this is true enough. The comparison on our part may not be done consciously, and doubtless introspective psychology would often fail to find any such act of comparison

in our conceptual knowledge. Judgments and apperception take place hundreds of times without our making use of concepts, if we mean by concepts *words*. But metaphysics is looking at an entirely different question. Metaphysics' expression conceptual knowledge means every sort of knowledge that is the equivalent of a proposition, or that fulfills the same purpose as a proposition, no matter whether it be a proposition or not. It regards all conceptual knowledge as so many propositions, because for its purpose it has to treat all conceptual knowledge as such. In short, it has to transform the apperception into its equivalent proposition in order to deal with it. This transformation does not alter the meaning; and, therefore, metaphysics has the perfect right to make use of it, seeing that the purpose of metaphysics is to determine the meaning. As long as the meaning of any interpretation is not changed, so long may metaphysics carry on all the transforming it chooses. Now, all conceptual knowledge can be so transferred without a change of meaning, hence in metaphysics we may speak of it as so many propositions.

Now if, as we have found, to know conceptually is but to assert the likenesses and unlikenesses obtaining between one object and all other objects, is such interpretation, strictly speaking, an unfolding of the real nature of the object at all? If all we can say about an object is to tell its relation to other objects, do we tell what the object itself is in and for itself?

Here before me lies an object; is it impossible for me to say what that object is in itself, for itself, that is, irrespective of all other objects? Let us see. If I call it a book, I am simply comparing it with other objects; if I say it is blue, I am doing the same. Likewise, when I refer to it as made of paper, when I give its name, and so on indefinitely. In short, as we were led to see, all predication is a comparison,

and a comparison is finding the relation of one thing with another. Thus I am unable to tell what this object I call a book is in and for itself.

There have, however, been philosophers that have claimed to be able to do so, and have made it one of the ends of their metaphysics to discover and to state what things are in and for themselves. Hence on this question we may speak of two parties: first, those who hold the view of the possibility of conceptually interpreting an object as it is in and for itself; and secondly, those that deny the possibility of so doing. The former are called Absolutists, the latter Relativists.

§ 69. *Absolutism vs. Relativism.*

As we have seen, reality is the subject of all predication, hence in our conceptual knowledge we are interpreting reality. But the Absolutist claims more than this; he wishes to interpret reality not only partially but as a totality. If we interpret reality as a totality, clearly we cannot do so by comparing it with something else, because there is nothing else with which we can compare it.

None the less the attempt has been made. As a typical example let us take Spinoza. His concept substance upon examination proves to be that which includes in itself all reality. It is that which is conceived in and thru itself and in and thru which everything else is conceived. Now this substance Spinoza tells us is eternal, perfect and infinite.

Has Spinoza here really succeeded in conceptually interpreting reality as a totality? Let us see. His substance is that which is conceived thru itself and is that thru which all else is conceived. What have we then in his word substance? Of course the Summum Genus. But as we have seen, the Summum Genus has no intension. Spinoza therefore interprets reality as a totality by a term having no intension. In short, he does not interpret it at all. Again, his words

eternal, perfect and infinite, examined, will each prove to be purely negative, that is, they deny all intension or rather affirm none. By them, therefore, reality is not interpreted.

In short, to interpret an object, as we have seen, we must use a concept with intension. Now a concept with intension has always a correlate; that is, concept A always infers concept non-A. If concept A be all-inclusive, concept non-A becomes zero, and by so doing destroys all intension in the concept A. Therefore, if we interpret conceptually we must use terms that have meaning. To have meaning, however, requires that the term have intension, and to have intension requires that the concept have a correlate, but to have a correlate necessitates that a differentiation have been made, in short implies comparison.

We are thus brought face to face with the fact that to interpret a thing in and for itself would be to make out of the concept of that thing a summum genus, and the summum genus has no intension. Our task from the outset is hopeless. Every term we thus employ, as soon as we analyze it proves to be but a mere negation, that is a negation of all intension.

Are we then unable to know things in and for themselves, and are we forced to adopt Relativism's conclusion that to know means solely to know relations? Most certainly if we mean by the word know, conceptual knowledge.

§ 70. *The Nature of Conceptual Knowledge, Continued.*

But if to know conceptually is only to know the relations, may it not now be asked, what is it to know relations? Must not this knowledge in turn be but knowing the relations between relations? Does Conceptual Knowledge when analyzed turn out to be an indefinite system of relations?

But again proceeding in the other direction, if to know

means to know the relation between things, what are the things as known? We are obliged to answer, mere relations. That is, the whole world resolves itself as conceptually known into a system of relations, and when we ask "relations between what?" we always get the same answer indefinitely, relations between relations. All is relation.

How can then such a system be valid knowledge? A relation presupposes two things to be related, and if the things themselves be but relations we are forced to commence an endless series in search for the thing related. But the series being indefinite, we cannot reach the thing. Our system appears then to be made up of relations between zeros or pure relations, that is pure nothing. Does not relativism then have as its conclusion complete skepticism? Is knowledge a valid process?

§ 71. *The Validity of Conceptual Knowledge.*

But all this time we are forgetting one of the most important elements in knowledge. That is the Given. Conceptual Knowledge, it is true, as a system of interpretation of the Given is an indefinite network of relations; but it is not a system of comparisons floating wholly in the air. It is based on the Given, and it never leaves the Given except to return to it again.

That is, we interpret facts by finding relations between them; and reality is so indefinitely rich that these facts form an endless source for new relations. The difficulty with knowledge is not that it is a system of relations, but that its work of finding relations is infinite. Were knowledge a mere system of relations it would indeed be an air castle, but it is a system of relations based upon the factual, and as we shall see ever appealing to the facts for its justification. If we can show this, the charge against Conceptual Knowledge proves groundless.

§ 72. *The Nature of Conceptual Knowledge, Concluded.*
The Nature of Proof.

The problem to be solved, we find, is, What does conceptual knowledge do in forming these relations; does it abandon totally the facts or does it ever appeal to the facts for its justification?

To answer this question would require on our part a much further analysis than we have made of conceptual knowledge as a relating process. The results of this further analysis we must here presuppose.

They would be as follows: conceptual knowledge in comparing or asserting a relation is doing nothing more nor less than asserting possible perceptions.¹ That is when we say of some object before us "this is a book," we mean that we now have a certain perception, and that under certain given circumstances we shall always have this same or other definite perceptions.

This will be clearer if we go more into detail. The object before us we call a book. Suppose we stretch out our hand and grasp it but no sense of touch follows. We at once say: "I must have had an hallucination, that could not have been a book." In short, in saying that the object was a book we implied that grasping it would mean a certain touch perception. Again, supposing we grasp it, but find quite a different perception of touch to follow than that expected, namely, we find it is made of stone painted like a book. We say at once, "that is not a book," implying that in calling it a book we meant that to grasp it would be followed by a particular sort of touch perception quite different from what we actually got. Again, if we go near it and find that instead of seeing the other side of the book it is but a colored picture on card-board; we at once say we were deceived, and imply

¹ Cf. Marvin, *Die Giltigkeit unserer Erkenntniss*, u. s. w., Teil II.

thereby that in calling the object a book we should upon approaching it get a particular visual perception. Again, if steadily looking at the book it suddenly disappears from view and a box take its place, we say we must have had an illusion, clearly implying thereby that our statement meant no such occurrence as the sudden disappearance of the book.

In short, if we examine our conceptual knowledge, we shall find that the relations therein asserted, when analyzed, always imply possible perceptions, and that in any given case these perceptions are indefinite in number.

Now can we classify these implied perceptions? What are they? They form when examined nothing more nor less than the complete proof of our assertion. In short, to say an object is a house, a dog, the moon, to say that man has evolved from lower types of life, or to make any similar statement, is but to assert the possibility of certain perceptions, and these perceptions are what we call the proof. *That is, conceptual knowledge is the assertion of its own complete proof, and this complete proof is always sought in perception.*

But why in perception? Because in perception we get the nearest to the facts. Perception, as we have seen, is itself conceptual knowledge, and therefore needs itself proof, or justification. This forces us to verify one perception with another, and that with another, and so on indefinitely. As a result, the work of proof in all a posteriori knowledge is an endless process. But the proof itself that is sought, is always sought by an appeal thru perception to the Given itself, or to the facts. Wherever we are satisfied that our perception correctly interprets the facts, we accept it as equivalent to the fact, and take it as so much final proof. Thus in practice, when we have taken hold of the book, opened it, and read in it, we are entirely satisfied that our

knowledge in declaring it to be a book was true knowledge. Theoretically, however, we have not completely proved it to be a book until every fact in the universe implied in our assertion has been appealed to, and such an appeal means an endless series of perceptions.

To sum up as a conclusion what all this implies we get the following:

To know, is to bring order into the manifold facts given us. This we do by asserting of the facts certain laws of nature, or uniformities of sequence and co-existence. These uniformities assert that always under given conditions certain events will happen. The proof therefore of knowledge consists in the actual occurrence of the predicted event, and this in its ultimate form means nothing more nor less than an appeal to the facts.

But to interpret a fact by asserting of it a law means to affirm an eternal verity. Our law, in short, must hold thruout all time. Therefore our assertion can be completely proved only by an appeal to all time. But an appeal to all time requires search for proof that is endless; in short, it was an assertion about all the facts in the universe. In other words, there dare not be one fact in the whole universe thruout all time that contradicts our assertion or law. If there be, our law is false or needs modification. Consequently, the complete proof of knowledge cannot be attained by the finite mind. The finite mind, therefore, is forced, as far as its knowledge is a posteriori, to be satisfied with probability.

None the less, knowledge as a whole is an appeal to the facts. It asserts naught but what it claims to be supported by facts. As such, knowledge is valid. Its interpretation of the facts is but to affirm laws of facts, and therefore it rests wholly upon the facts. As finite minds, we may be obliged to search indefinitely for the facts, and may never be

sure when we have really gotten hold of the facts. This, however, is not a theoretical but a practical difficulty. Knowledge as such appeals to the facts; knowledge as such then presents to mankind an ideal that he can but partially realize. The facts, however, are there; they constitute the Given, the object of his interpretation. All that is lacking is the ability of the finite to accomplish the ideal its knowledge demands. This ideal is the complete interpretation of all the facts of the universe by comparing them, and from minor comparisons rise to major, from lower to higher, till the interpretation of the universe of facts has brought order into the same, and has made a complete system of comparisons with every fact placed in the system where it belongs.

But as the facts such a system interprets are infinite, so also is the task of their interpretation infinite. This in no way militates against the validity of knowledge. It shows only that its task to be completed would require an intelligence also that is infinite. The last word then of metaphysics on this question would seem to be, as far as our knowledge is *a priori*, we have certainty; as far as it is *a posteriori*, the mind's task is infinite, and therefore, the highest we can ever realize as finite beings is probability.

CHAPTER IV.

THE PROBLEMS OF THE PRINCIPLES OF REALITY.

§ 73. *The Principle of Contradiction. The Unity of the Universe.*

THE principle of contradiction declares that in the interpretation of reality we must never contradict ourselves. To put it in other words, reality is an absolutely harmonious system, therefore, any interpretation of it that is self-contradictory is a false interpretation.

Now, the content of this principle and the assertion of the Unity of the Universe are one and the same thing. We have seen in Section 61 that the Given, or the object of our knowledge, the universe, is the subject of all predication. Here, too, we have this same principle of the unity of reality coming to the surface.

The principle of contradiction tells us that in interpreting reality all the facts of the universe have to be taken into account. Thus, if we call a certain object a stone, according to the principle of contradiction there dare not be one fact that is properly interpreted in the whole of the universe of facts in conflict with our present interpretation. In short, as should be clear, to say what a thing is, is also to say what it is not, to differentiate it from all other facts. But to differentiate anything from all other things is not only to say something about the thing itself, it is also to say something about everything else in the universe. If this were not so, why need we care what other facts are? But we do care;

for none of these when rightly interpreted dare be in conflict with our present interpretation, if this latter is to be true.

That is, whenever we interpret one fact we are, according to the principle of contradiction, interpreting all facts or the whole universe.

But how does this affirm the unity of the universe? Quite clearly, because we cannot divide the universe into two and interpret the one half as in itself a whole. As we saw, the Given for idealism, and reality as a whole for realism as well as idealism, is the metaphysical subject of every proposition. We are utterly unable to divide this subject, and thus exclude one of the parts of the universe. All are included and must be included. To interpret reality as two worlds is, therefore, to annihilate knowledge, to disregard the principles of reality.

We must here make a distinction between two meanings of the word exist. The one meaning is the absolute existence, the old "*absoluta affirmatio existentiae*," or the "absolute Position" of Kant. The other meaning of the word exist is quite different. It is this latter meaning that the word has in ordinary daily usage. Thus the pen now in hand exists. What we are here affirming is, as we have seen, a conceptual interpretation of the Given. It does not tell us that reality as a whole exists. This we presuppose, but it gives us an interpretation of reality at the moment. We, in short, say, "reality, properly interpreted, is at this moment a pen in my hand."

To put it otherwise, we can doubt anything existing, as a particular person, pen, house, etc., but we can never doubt the existence of the universe. That is, the Given exists absolutely. Its existence is beyond doubt. All doubt as such presupposes the existence of the Given. Existence in the second sense, as applied to objects in a conceptual interpretation of reality, must be proved by an appeal to the Given, is in short contingent.

Now if we mean, as Metaphysics at times has meant, by substance (coming from the Aristotelian doctrine) the absolute existing entity, then we must apply this solely to reality as a whole. Reality, or for idealism the Given, is an absolutely self-existent harmonious system, or unity.

But substance may be used in a different sense. We may use it as a conceptual interpretation of the facts. We may in short make the distinction between substance and non-substance, that is, we may distinguish between things and their qualities.

If we make this distinction we have then to ask ourselves, does this assertion of a plurality of things harmonize with the unity of the universe? This is the so-called problem of the One and the Many.

§ 74. *The One and the Many.*

It is at once evident that in interpreting reality we dare not make it a plurality in the sense of asserting two worlds. But such a plurality is quite a different thing from plurality as asserted of things. The former is an absolute plurality, and to assert an absolute plurality is as said quite different from interpreting the facts as a plurality of things. There is here little difficulty. If there be difficulty it lies in making our assertion of a plurality self-consistent. The difficulties, however, that can be brought forward can be urged also against all conceptual knowledge, namely, they are the old difficulties of relativism.

Now whether the Given be a plurality or not, can only be answered by an appeal to the Given; and the fact is that man in appealing to the Given has ever brought back the answer, the Given is a manifold, a plurality. It may be of course that man thus far has misinterpreted the Given, but the only way he can answer this question is the way he has ever attempted to do, namely, by appealing to the facts.

The question at this stage is purely empirical. If our interpretation of the Given as a plurality prove self-contradictory it must be because we have not yet so formulated our interpretation of the facts that it is adequate.

But mark well, an inadequate interpretation is not necessarily to be cast aside. If this were so, how little of our knowledge would be left? The savage that calls a watch an animal is not wholly wrong. He uses the word animal in a much wider signification than we do. He has not begun to make the differentiation between mechanical and organic motion that we have. His word animal in short does not mean what ours does. So in interpreting reality, our language to a higher intelligence would seem no doubt very inadequate. If, however, we take it not for the millions of differentiations that still remain to be made but for the bungling rough and ready interpretation that it is, looked at from the point of view of a complete interpretation, where is the evidence that to a very large extent our interpretations are not true? Where is the evidence that reality is not a plurality of things?

Doubtless we should not be satisfied to stop at this point. It is the duty of science constantly to extend the work of differentiation or dissection of the facts. No doubt we need a better formulation of the concept plurality as now used. We may even now feel our present usage inadequate for all differentiations. But where is the evidence that a complete formulation will revolutionize our interpretation of reality as a "many?"

This is, as said, a purely empirical question, and philosophy, as defined by us, has nothing to do with it. Philosophy, however, must demand that science, in interpreting reality, adopt a formulation not leading to conflict with the principles of nature. Science dare never interpret reality as an absolute plurality, and whenever its formulation of reality

as a plurality is found by philosophy to lead to such a conflict, then it is the office of philosophy to call a halt.

There are two difficulties that can be found with our concepts. The first is that we find them to be false when applied to some given fact. The second is that they become inadequate when new differentiations that they should take account of are not recognized in the usage of the concept. Thus any one finding fault with our applying any concept as an interpretation of reality, charges our interpretation with being false or inadequate. The difficulty of the One and the Many is from the above evidently the latter.

Now what is this difficulty? The following will perhaps give us the answer. The only way a concept can be understood or its meaning obtained is, after all, open only to him that has access to the facts of which the given concept is an interpretation. Now the fault with a concept will come then ultimately from finding that it does not agree with the facts, or that we have discovered new differentiations or sides of the facts that the old concept does not recognize. In neither of these cases is it the business of philosophy to call the halt. What then is the trouble? The trouble is, science persists in getting beyond the empirical field and using concepts that interpret not the facts, or the Given, but metaphysical and at that realistic entities.

If empirical knowledge will mean by plurality and things what actually it finds in the Given, the difficulty is gone. The rest is but to modify our concepts by means of repeated observation and finer differentiation. But in all cases keep to the facts. If we do this, any serious dispute in this matter can be thrown into the field of realistic metaphysics, or identified with the controversy between realism and idealism.

In short, the imperfect differentiation that philosophy may urge as the basis of its finding fault with the interpretation of the world as a plurality, is that the distinction has not

been made between an empirical and a metaphysical interpretation, and that we, therefore, in the given concept have a school of metaphysics to deal with. In this case, we have in the concept in question some theory we have probably already dealt with.

There remains, however, a purely metaphysical problem of the One and the Many for us to discuss. This we must do in connection with the principle of Sufficient Reason, for the problem is whether there be many grounds of the universe or not.

§ 75. *The Principle of Sufficient Reason. The Problem of Change and the Permanent.*

Literature: Windelband, Section 13.

The Principle of Sufficient Reason tells us, that in nature everything has a ground both why it is, and why it is what it is, and that this ground is either in the thing itself or without it. In the former case the object would be self-existent, or, to use the old term, *causa sui*. Here, however, it is evident that the ground has nothing to explain; in other words, we accept the object as ultimate, and therefore, as needing no explanation. It must then be not the self-caused in whose interpretation the principle of sufficient reason is to play a part, but that which presupposes a ground other than itself, in short, that forms not its own ultimate explanation.

Now the next question is naturally what is it that has its ground not in itself, but in another. The answer is *change*.

Were there no change in the universe, the absolute identity would need no explanation, or all explanation would run in the formula of the principle of identity A is A. But what the principle of sufficient reason is to explain is not an identity, but how A becomes B. The principle of sufficient reason steps in to explain what falls without the principle of identity, that is, the non-identity in the world, or the change.

Again, the ultimate ground must be its own ground, and therefore it itself cannot be change, as change needs a ground to explain it. On the other hand, as we have seen, the absolutely permanent is self-grounded. From this we draw the conclusion that change presupposes the absolutely permanent as its ground.

We may then interpret the principle of sufficient reason as the assertion that change presupposes a ground, and that this ground is the absolutely permanent.

This absolutely permanent may be conceived perhaps in two ways. First, it is an absolute permanent law of the universe, revealing its presence thruout all change. Secondly, it may be conceived as an absolutely permanent entity outside of time, or in the words of Spinoza, eternal, presupposed by all that is in time and that on this account is subject to change.

In the former case, it may be held that we can, at least to some extent, know the ground of the universe, provided we can interpret this absolute law. But mark well, *only to some extent*, for never yet was formulated a law that would reveal to us the origin and character of all change, nor will there ever be. Every attempt to deduce the world process out of the ground has failed, and must fail, for the simple reason that all such deduction is based on identity, and the sufficient reason is appealed to to explain non-identity. On the other hand, we may get a different result. The very purpose of presupposing a sufficient reason is to explain change or the world process. That is, we assume the existence of the world ground solely to explain. It is then by supposition revealed *in the world process*, only to explain which we assume the ground to be. We thus get a second doctrine that the ground other than its absolute existence is unknowable. We know its consequent the process, but it is known only as the explanation of that process.

This doctrine must be, as said, largely held by either party. We certainly cannot know the ground sufficiently to deduce the world process therefrom, yet this remains nevertheless, it would seem, the ultimate ideal of knowledge.

Those (only idealists) who regard the ground of the world process as a law, formulate the same as a law of evolution.

§ 76. *The Unity of the World Ground.*

The principle of sufficient reason has told us that the world process must have a ground. The next question that suggests itself is whether that ground be one or whether a plurality of grounds also be a possibility. In other words, here too arises a possible conflict between a Singularism and a Pluralism.

A pluralistic metaphysics has generally tended to hold that the grounds of the world process are many. Yet this has not been carried to the extreme nor held with the persistence that the doctrine of a plurality of substances has been. The reason is evident. Pluralism has very often been theistic. Theism naturally finds in God the only true ground, or creator of the world of events. It may be, as in Leibniz's doctrine of the monads, that after creation the individual creatures go on their way in relative independence for all time. This, however, is a possibility only because God before all time created in them potentially all their activities. Their activities are therefore not absolutely creative. God thruout is the only real ground.

We may, however, suppose a theory that would truly seem to assert a plurality of grounds. Atomism, for instance, in its atheistic form, would be such a doctrine. Would not this be a possible hypothesis? In short, is a plurality of grounds not a possibility? It is not.

If we consider the matter a moment we shall easily see why it is not. Is it not clear that the creative activities of

the individuals must be either absolutely independent or mutually inter-dependent? If we suppose them to be the latter, are then the individuals really the ground of the activity? Is not the true ground the interactivity of the many individuals? The resulting process has as its sufficient reason not any one individual, but many individuals acting together. We are then forced beyond the individual, if we will find the ground. Therefore in this case the individual is not the true ground.

On the other hand, if we suppose that the activity of each individual is absolutely independent, then we shall have resulting from each individual a process. This process, however, will be no less than a world process all by itself. Our result will therefore be that there are as many worlds as there are individual creators. But this doctrine, as we have seen, will bring us into conflict with the principle of contradiction. We dare not deny the unity of the universe. The conclusion therefore of our consideration of the possibility of a plurality of grounds for the world process is that sooner or later such a theory comes into collision with the unity of the universe. In fact the unity of the world presupposes the unity of the ground of the world process.

§ 77. *The Principle of Causation.*

The Principle of Causation we can best discuss under the heading of the problem of the Principle of Sufficient Reason.

There are two points for us to consider concerning causation. First, what is Causation, and how do we distinguish the cause from the ground? Second, is the assertion of Causation a principle of nature or is it only a posteriori knowledge?

We saw that the ground of events is itself not to be regarded as an event; or, as it may be described, the consequent is phenomenal, its ground is noumenal. A cause, however,

is always an event along with its effect. Thus we strike the table and a noise follows. We say that the blow was the cause of the noise, and of course the blow is just as much an event as is the effect, the noise. The ground, however, of these events does not consist in any event to which we can point but to some absolute permanency presupposed in all change.

Again, the cause always precedes the effect, and we find that the effect never takes place without the cause, nor does the cause ever exist without the effect following it.

Another point that we must notice, is that much doubt arises because we often speak of some event as the cause of another, when further analysis would show that many other events might just as well be considered the cause of the same effect. Thus, when we strike the table and the noise follows, not only may the blow be considered the cause, but also the character or hardness of the wood and of our hand.

This point we may sum up thus. In daily life we speak roughly of this or that event being the cause of some other event, but for metaphysics the cause is the sum total of the conditions that must first take place before a given event, the effect, occurs. A complete knowledge of any series of events might find these conditions to be indefinite in number.

The cause, then, of any event is itself an event or a group of events that must take place before the given event can exist.

We are now ready to consider the second question. This we stated to be the following: is causation a principle or an empirical law of nature? In other words, can we say that it is an absolute law of nature, apart from any empirical evidence, that under the same conditions the same event or effect must always happen? Thus, suppose we find that A, B, C and D, take place again: will E also follow necessarily?

On the other hand, can we merely affirm that whenever A, B, C, D have occurred, E also has occurred, and therefore conclude the probability of its taking place again? There is much equivocation in this question; in fact, there are really two questions at issue.

1st. Hume showed once for all that we can never know what will follow A, B, C, D, except by actual observation. We can never deduce from an event what its effect will be. On this question we give Hume and J. S. Mill the right of the dispute. It may be too that we shall never be sure in any given case that in A, B, C, D we have all the conditions. Perhaps X, Y, Z are there and are conditions without our knowing it. In this case it may be that A, B, C, D will again occur, but X, Y, Z may be absent, and then E will not follow. Here again the empiricist is right in denying our absolute surety of what will happen as an effect of any given series of events.

2nd. But there remains a second question. The empiricist cannot hold to the view of Hume or of Mill without causing knowledge to undergo shipwreck. That is, if A, B, C, D include all the events called the cause, then E must always follow, or, under absolutely the same conditions the same event will always follow. This is the Principle of Causation.

Now Mill tells us that all a posteriori knowledge, or inductive proof, presupposes this statement as its ultimate premise. But he goes on to tell us that the law is itself but the conclusion of induction. If this be so, induction is one wretched *petitio principii*. It always presupposes the very thing it must prove. This is the *reductio ad absurdum* of Mill's and Hume's doctrine. If induction must presuppose the law of causation, then either we do not know that law to be true at all, or it is known a priori.

In the former case, skepticism is the conclusion, and a skepticism too of a type we need not answer, seeing that it is

impossible to answer the skeptic, not because he is right, but because he puts himself outside of all possible proof or commits intellectual suicide.

The former case is in fact all that is left open to possible knowledge. *Knowledge presupposes as a principle of nature that under the same conditions the same event will follow, or the principle of causation.*

§ 78. *The Persistence of Force.*

Literature : Herbert Spencer, First Principles, Part II., Chap. VI., p. 192, a-d.

This doctrine, formulated in our own century, includes the persistence of motion and matter. Our present problem is the question, is this law a piece of a posteriori knowledge, or is it a principle?

Here again there is room for much equivocation. We must not assume by the word persistence that we can tell the character of that which persists. Certainly experience alone can determine this.

But is there not an ultimate uniformity of nature regarding the quantity present in all physical manifestations that does and must persist?

Thus it may be that potential energy becomes kinetic, and vice versa; but does not a fixed quantitative uniformity always persist thruout all motions and all matter? In short, granting the conclusion as at least inductively probable, does not induction itself, just as in the case of causation, not prove, but presuppose, this permanency? Is it a principle of nature, or only a law empirically known? Does all induction about quantity, or all knowledge of quantity, presuppose it? If so, then it must be a principle. On this subject there is to-day considerable difference of opinion. No doubt the present law of science was arrived at by induction, but is not this merely an accident, and does not all such induction about quantity presuppose it? In this matter Mr. Herbert Spen-

cer seems to be right. The Persistence of Force is a principle. All measurement presupposes it. Deny it, or in other words, do not presuppose it as a premise, and how, by any possible means, will you ever measure any quantity? Unless the standard of measurement be a permanency, how can there be any quantitative comparison? To prove an identity between two quantities, we must presuppose a permanent standard; and to prove our standard permanent, we must use some other standard that we presuppose to be permanent. In short, to prove or disprove the permanence of force, you have to presuppose it as a truth. All induction concerning quantity must presuppose it as a principle of nature; therefore, the persistence of force is a principle of nature. If not, we should be landed exactly where Hume's view of causation would bring us were it wholly true.

In these two cases, namely causation and the persistence of force, we get the best evidence of the impossibility of an absolute empiricism. Inductive knowledge presupposes principles. Take away these, its presuppositions, and it goes to the wall. The rationalist here may adopt Hume's challenge. If there be any empirical knowledge that does not presuppose principles, let it be produced.

§ 79. *The Doctrine of Evolution.*

Literature: Herbert Spencer, *First Principles*, Part II., Chap. XVIII., ff.

The doctrine of evolution has made claim to be a principle, or to be deducible from principles, and so to be not at all or not merely an empirically known law.

Is this view correct? We have already the data at hand to answer this question in very few words. If we mean by evolution being known *a priori*, that all processes of nature presuppose a ground that fully explains them, then our so-called doctrine of evolution is identical with the principle of sufficient reason.

If, on the other hand, we mean thereby that we are able to deduce from the ground of the universe the character or order of the world process, then we have found this to be impossible.

Deduction can never proceed except by the principle of identity. It cannot get in its conclusion what is not in its premises. Now, by the very supposition that we need the ground to explain events, we admit that the character of events is not ultimate, that we, in other words, need something to explain that character other than the character itself. If this be so, all hope of establishing identity between ground and consequent is gone, and we cannot proceed by means of the principle of identity. This, as we saw, makes up the very difference between the principle of identity and that of sufficient reason. Our conclusion then is, there cannot be a deduction of the world process or its character from the world ground. The doctrine of evolution as known *a priori* is such an attempt. Therefore, to know the doctrine of evolution *a priori* is an impossibility. The doctrine of evolution must thus be regarded not as a principle of nature, but as a law of nature knowledge of which is gotten by *a posteriori* methods.

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